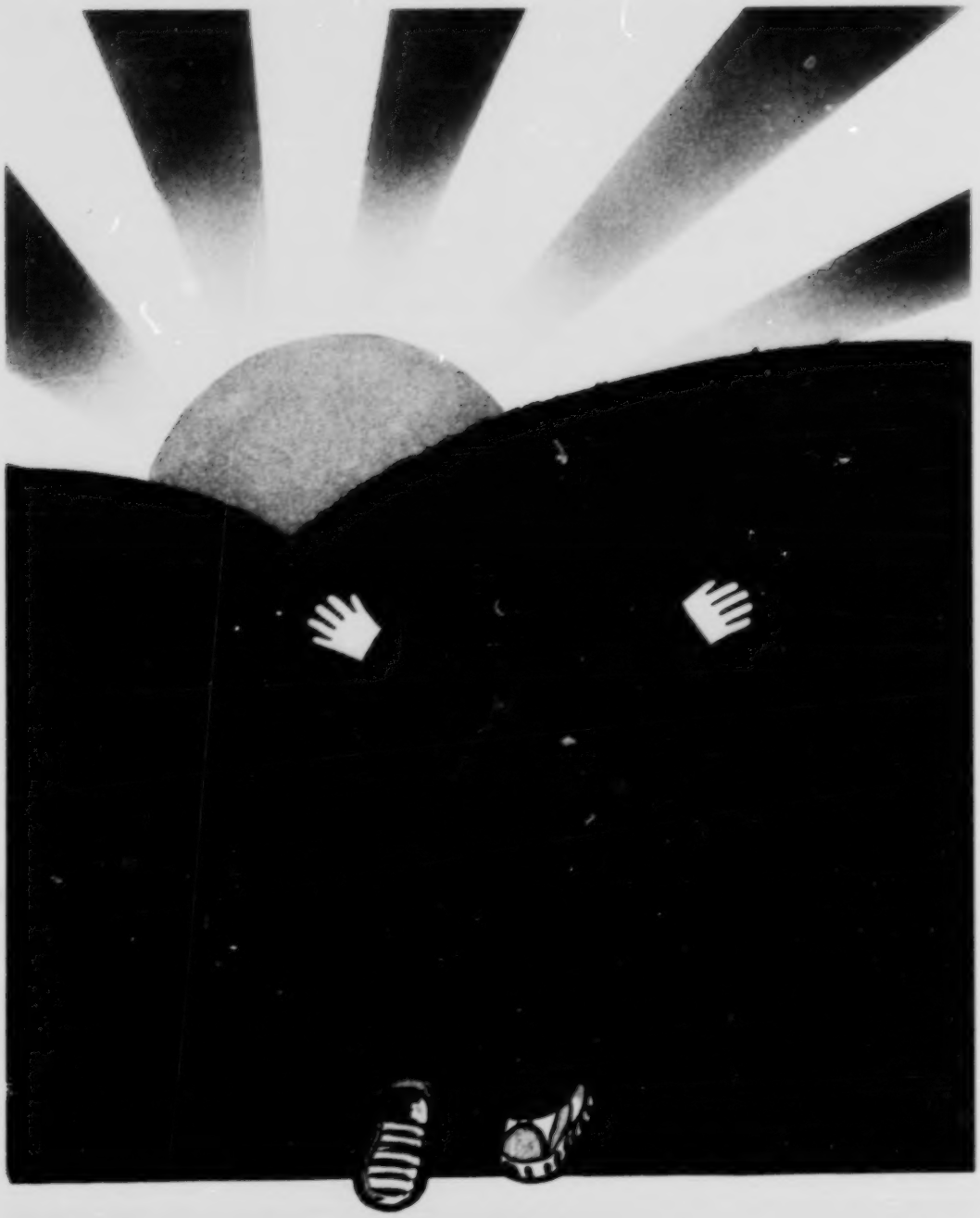
BETTER BEGINNINGS BETTER FUTURES



Ontario

Ministry of Community and Social Services

Charles Beer
Minister

BETTER BEGINNINGS, BETTER FUTURES:

AN INTEGRATED MODEL OF

PRIMARY PREVENTION OF EMOTIONAL AND BEHAVIOURAL PROBLEMS

© Queen's Printer for Ontario, 1989
10M/9/89
ISBN 0-7729-6148-4

90-04230/

BETTER BEGINNINGS, BETTER FUTURES:

AN INTEGRATED MODEL OF PRIMARY PREVENTION OF EMOTIONAL AND BEHAVIOURAL PROBLEMS

TABLE OF CONTENTS

ACKNOWLEDGEMENTS V

FOREWORD IX

PREFACE X

CHAPTER

I. INTRODUCTION 1

A. Background 1

B. Goals of this Publication 6

II PRENATAL/INFANT DEVELOPMENT PRIMARY PREVENTION PROGRAMS 9

A. Literature and Program Review 10

B. Summary of Themes 16

C. Summary of Research Limitations 19

D. Components of Good Programs 19

E. Future Research Directions 23

III. **PRIMARY PREVENTION PROGRAMS FOR PRESCHOOL-AGED CHILDREN** 25

A. Literature and Program Review 25

B. Summary of Themes 34

C. Summary of Research Limitations 38

D. Components of Good Programs 39

E. Future Research Directions 41

IV. **PRIMARY PREVENTION PROGRAMS FOR PRIMARY SCHOOL-AGED CHILDREN** 45

A. Literature and Program Review 45

B. Summary of Themes 56

C. Summary of Research Limitations 58

D. Components of Good Programs 59

E. Future Research Directions 62

V. **SUMMARY OF LIMITATIONS TO THE CURRENT FIELD OF PRIMARY PREVENTION RESEARCH** 65

VI. **GUIDELINES FOR COMMUNITY INVOLVEMENT** . . . 69

A. Definitions and terminology 69

B. Summary of Themes 71

C. Guidelines 72

VII. RESEARCH ISSUES AND GUIDELINES FOR RESEARCH 87

A. Central Research Issues 87

B. Guidelines for Program Development 89

C. Guidelines for Managing Program Evaluation . . . 92

D. Guidelines for Evaluation Implementation 95

E. Guidelines for Measurement Selection and Use . . 97

F. Guidelines for Cost Analytic Evaluation 102

G. Research Ethics 104

VIII. AN INTEGRATED MODEL FOR PRIMARY PREVENTION 107

A. Summary of Themes 107

B. The Integrated Model 111

APPENDICES

Appendix A:	Examples of Well-Researched and Documented Programs	117
Appendix B:	Technical Advisory Group Members	135
Appendix C:	Pre-natal/Infancy Bibliography	141
Appendix D:	Preschool Bibliography	149
Appendix E:	Primary School Bibliography	153
Appendix F:	Community Involvement Bibliography	159
Appendix G:	Research Issues Bibliography	165
Appendix H:	List of Selected Ontario Programs	175
Appendix I:	American Programs	181
Appendix J:	Research Assistants	183
Appendix K:	Ministry of Community and Social Services Staff Support	185

ACKNOWLEDGEMENTS

The Ministry wishes to thank the Technical Advisory Group for their exceptional work. They readily donated time and expertise to this project, working through the summer to meet Ministry deadlines. Their intense commitment to developing a state-of-the-art primary prevention research demonstration model for Ontario is reflected in the substance of this report. We wish to thank each of the following contributors:

Maru Barrera, M.A., Ph.D.
Co-Chair, Pre-natal/Infant Subgroup

Associate Professor
Department of Psychiatry
McMaster University
Hamilton, Ontario

Director
Infant-Parent-Child Program
Chedoke-McMaster Hospitals
Hamilton, Ontario

Dianne Bennett-Gates, M.Ed.,Ph.D
Preschool and Research Subgroups

Sciential Research and Computer Services Inc.
Mississauga, Ontario

Peggy Birnberg
Community Involvement Subgroup

Executive Director
Opportunity for Advancement
Toronto, Ontario

Douglas Brown, Ph.D.
Preschool Subgroup

Executive Director
Child Assessment and Treatment Centre
Burlington, Ontario

Joy Davey, Ph.D., C.Psych
Preschool Subgroup

Director (until June, 1988)
University Laboratory Preschool
University of Western Ontario
London, Ontario

Joey Davidson, B.Sc.N.,M.B.A
Research Subgroup

Mental Health Nursing Supervisor
Nursing Division
Scarborough Health Department
Scarborough, Ontario

Margaret Deeth, B.A., A.T.C.M.
Primary School Subgroup

Coordinator
Early Childhood Education Dept.
Toronto, Board of Education
Toronto, Ontario

Barrie Evans, Ph.D.,C.Psych
Co-Chair,Pre-natal/Infant Subgroup

Treatment Director
Madame Vanier Children's Subgroup
London, Ontario

Betty Flint, Professor Emeritus

Pre-natal/Infant Subgroup

Coordinator,
The Infant Centre,
Institute for Child Study,
Toronto, Ontario

Benjamin H. Gottlieb, M.S.W., Ph.D
Community Involvement Subgroup

Professor
Department of Psychology
University of Guelph
Guelph, Ontario

Andre Guitard, M.Ed.
Community Involvement Subgroup

Executive Director
Centre des Services Familiaux de Prescott-Russell
Hawkesbury, Ontario

Bryan Hayday, B.A.,M.A.
Chair, Community Involvement Subgroup
Executive Director
Ontario Prevention Clearinghouse
Toronto, Ontario

Irene Kyle
Pre-natal/Infant Subgroup

Executive Director
Canadian Mothercraft Society
Toronto, Ontario

Betty Ann Manuel, B.Sc.N.
Pre-natal/Infant Subgroup

Supervisor of Maternal Infant Health
Regional Municipality of Durham
Department of Health Services
Oshawa, Ontario

Sharon Marcovitch, Ph.D., C.Psych.
Chair, Preschool Subgroup

Co-Director
Developmental Evaluation Unit
Hospital for Sick Children
Toronto, Ontario

Dan Offord, M.D., F.R.C.P.(C), National Health Scientist
Chair, Research Subgroup

Professor of Psychiatry
Division Head, Child Psychiatry
McMaster University
Hamilton, Ontario

Research Director
Chedoke Child and Family Centre
Chedoke-McMaster Hospitals
Hamilton, Ontario

Gabrielle O'Reilly, B.A.,M.Ed.
Chair, Primary School Subgroup

Associate Professor
Faculty of Education
York University
North York, Ontario

S.Mark Pancer, Ph.D.,C.Psych.
Research Subgroup

Associate Professor
Department of Psychology
Wilfrid Laurier University
Waterloo, Ontario

Peter Penz, B.A., M.A., D.Phil.
Research Subgroup

Associate Professor
Faculty of Environmental Science
and Graduate Program in
Social Work
York University
North York, Ontario

Ray DeV. Peters,Ph.D.
Primary School Subgroup

Associate Professor
Department of Psychology
Queen's University
Kingston, Ontario

Research Consultant
Beechgrove Children's Centre
Kingston, Ontario

Frances Poleschuk, B.A., M.Ed.
Primary School Subgroup

Director, Canadian Association
for Young Children
Vickers Heights, Ontario

Ada Schermann
Primary School Subgroup

Special Lecturer and Ed'l.
Consultant
Faculty of Education
Toronto, Ontario

Malcolm Shookner, B.A.,M.A.
Community Involvement Subgroup

Executive Coordinator
North York Inter-Agency and
Community Council
North York, Ontario

Carole Sinclair, Ph.D
Preschool Subgroup

Director
The Dellcrest Resource Centre
Downsview, Ontario

Clara Will, B.A.,B.Ed.
Preschool Subgroup

Executive Director
Adventure Place
Willowdale, Ontario

The Ministry and the Technical Advisory Group also wish to acknowledge that the comprehensiveness of this report rests on the superior efforts of the research assistants to the Technical Advisory Group. The research assistants conducted computerized literature searches, carefully summarized studies, interviewed key informants from identified Ontario programs and presented findings to the Technical Advisory Group members. We wish to thank Heather Anne Driver, B.A., M.S.W., University of Toronto; Kathleen Kitching, B.A.(Hon), M.A., Wilfrid Laurier University; Margaret Matthews, Ph.D. candidate, Queen's University; Karen Purvis, M.A. candidate, Ontario Institute for Studies in Education; and Linda Steenson, B.A., University of Guelph.

In addition, the Ministry of Community and Social Services and the Technical Advisory Group wish to pay special tribute to Bryan Hayday, Director of the Ontario Prevention Clearinghouse, and his staff for their availability and expertise in identifying literature sources and relevant Ontario programs in support of the Technical Advisory Group. Their wry wit and helpfulness eased the considerable work of the research review.

Naomi Rae Grant, M.B.,B.S.,FRCP(C)
Chairperson
Technical Advisory Group

Professor of Child Psychiatry and Pediatrics
Director, Division of Child Psychiatry
University of Western Ontario

Carol Crill Russell, M.S.W., Ph.D.
Project Design Coordinator
Primary Prevention Initiative
Children's Services Branch
Ministry of Community and Social Services

PREFACE

This report is a collaborative production of the Children's Services Branch of the Ministry of Community and Social Services and the Technical Advisory Group to the Coordinated Primary Prevention Initiative. In late May, 1988, the Ministry asked the Technical Advisory Group, consisting of 25 researchers and program directors from the province of Ontario, to review the literature and programs on primary prevention of emotional and behavioural problems for young children living in economically disadvantaged communities. Based on this review the Technical Advisory Group first wrote a paper summarizing the findings and recommending a model to the Ministry for implementation in a research demonstration project. In conjunction with the Ministry, the Technical Advisory Group then produced this publication to inform program directors, agencies and communities, interested in implementing state-of-the-art primary prevention programs, of the current status of such programs.

The strongest characteristic of this "multi-disciplinary team," was its diversity. The breadth and depth of experience was a powerful force in determining the direction and outcome of the review. No one profession or theoretical approach was able to dominate the focus; there was constant challenge to document and justify conclusions.

The Technical Advisory Group sub-divided into five working groups focusing on infants, preschoolers, primary schoolers, community involvement and research issues. Until recently, there have been few attempts to consolidate these five areas into a common framework. Thus, in addition to 25 individual perspectives, 5 subgroup views developed.

Given the variety of professional backgrounds, and the distinctness of the literature, it is rather remarkable that the Technical Advisory Group developed a solid consensus in recommending the Integrated Model. Yet, the model most convincingly supported in the literature and program review is an Integrated Model. Implementing either of the two types of the Integrated Model in well-founded research demonstration projects will place any community or agency on the forefront of primary prevention programming and research.

BETTER BEGINNINGS, BETTER FUTURES:

AN INTEGRATED MODEL OF PRIMARY PREVENTION OF EMOTIONAL AND BEHAVIOURAL PROBLEMS

I. INTRODUCTION

A. BACKGROUND

The Ministry of Community and Social Services released the consultation paper, "Investing in Children: New Directions in Child Treatment and Child and Family Intervention," in the Spring of 1988. One of the major directions for Children's Services suggested in that paper is, "primary prevention with 'at risk' populations." The Ontario Child Health Study, a 1983 epidemiological survey of children's mental health, documented that children living in low income communities, with high rates of families either on social assistance or living in subsidized housing, are at risk of developing emotional or behavioural problems.

In an effort to reduce the risk for children living in economically disadvantaged communities, the Ministry of Community and Social Services decided to support a number of well-evaluated primary prevention research demonstration projects. Therefore, the Ministry of Community and Social Services established **3 GOALS** of such primary prevention projects:

- **Reduce the incidence of serious, long-term emotional and behavioural problems in children;**

- **Promote the optimal social, emotional, behavioural and cognitive development in those children at highest risk for such problems; and**

- **Strengthen the ability of communities to respond effectively to the social and economic needs of children and their families.**

I INTRODUCTION

The Ministry of Community and Social Services has been actively involved in primary prevention research for more than a decade. On the basis of that experience, and in support of the three goals, a Ministry Planning Group established **10 PRINCIPLES**, on which future primary prevention research demonstration projects should rest:

- **Individual and Environmental Enhancement:** The program(s) should both enhance children's mental health **and** promote a healthier environment for children.

- **Accessibility:** Programs should be aimed at high risk communities and be freely accessible to all children in those communities.

- **Non-stigmatizing:** Programs should be non-stigmatizing.

- **Family Involvement and Community Development:** In addition to focusing on children, program(s) should include both family and community involvement in development and implementation.

- **Personal/social and Cost Outcomes:**
  The program(s) should:

  - Maximize the probability of short-, mid- and long-term positive outcomes; and

  - Produce cost-savings in comparison to other programs or services

- **Validity and Reliability:** There must be evidence, based on well-evaluated similar successful programs, that the program(s) significantly lowers the incidence of childhood problems, and enhances social adaptation.

- **Generalizability:** The program(s) should be generalizable to similar economically disadvantaged communities across Ontario. Therefore, the project should be:

  - Capable of integration into service sectors found in most communities (e.g., public health, child care, schools).

  - Relatively low-cost.

  - Sensitive to the social and cultural diversity of families and communities.

- **Evaluability:** The program design should lend itself to comprehensive evaluation of short-, mid- and long-term effects.

- **Intra- and Inter-Ministerial Coordination and Cooperation:** The program should promote and facilitate cooperation and coordination within and between ministries, at both the corporate and local levels. This refers especially to the Ministry of Health, the Ministry of Education and the Ministry of Housing, although other ministries may also be involved.

- **Inter-agency/Community Service Coordination and Cooperation:** The program should be based on collaborative networks of service providers across public health, education, childcare, mental health and recreation sectors to ensure holistic and consistent support for children and their families.

B. FEBRUARY 1988 CONSULTATION ON DRAFT TERMS OF REFERENCE OF THE COORDINATED PRIMARY PREVENTION INITIATIVE

The Ministry of Community and Social Services developed a draft Terms of Reference for the Coordinated Primary Prevention Initiative. In February 1988, a provincial consultation was held to review this document. One of the strongest recommendations from that consultation was the necessity of developing guidelines for community involvement and research. This recommendation reflects one of the biggest problems with the field of primary prevention: the great gap between well-researched programs, usually associated with major universities and headed by prominent research directors, and grass-roots programs with small budgets and minimal attention to evaluation. This division leaves the field with 1) research demonstration projects that are well-documented and have high internal validity, but little external validity (i.e., are these programs generalizable to other settings?), and 2) programs which are relatively unknown professionally, with little or no documented internal validity, but which have high external validity (i.e., people in the community support and use the program, and think it works well). Such a discrepancy is unacceptable for future primary prevention research demonstration projects.

On the basis of a second recommendation from the February 1988 Consultation, the Ministry formed a Technical Advisory Group, consisting of 25 prominent researchers and program directors from across Ontario, to evaluate the current state of primary prevention programming for young children in low income communities. The Technical Advisory Group included a broad cross-section of disciplines and specialization relevant to the field of children's mental health, including educators, community workers, psychiatrists, psychologists, public health nurses and social workers. (Appendix B contains a complete list of Technical Advisory Group members.) The breadth of this group was required because no one profession can claim ownership of the field of primary prevention. By its very nature, prevention requires cross-professional collaboration and expertise.

The challenge to the Technical Advisory Group was to propose guidelines for projects which have a strong applied research design accompanied by solid backing, support and collaboration from the community. Ultimately, the research demonstration projects will need to make these two critical aspects of community involvement and research visible, joined and credible from the beginning. Therefore, the Technical Advisory Group, in an effort to bridge the gap between high and low profile primary prevention projects, focused their research review on "community involvement," in addition to scientifically credible positive mental health outcomes.

C. TECHNICAL ADVISORY GROUP MANDATE AND PROCESS

The Technical Advisory Group was given two major tasks:

- examine the research and selected programs, in Ontario and other jurisdictions, for effective primary prevention programs for infants, preschoolers and primary school-age children; and

- recommend project and research guidelines for model research demonstration projects for young children living in high risk communities.

To accomplish these tasks, the Technical Advisory Group worked in five sub-groups addressing these areas:

- pre-natal care and infants;

- preschool children;

- primary school children;

- community involvement; and

- research issues.

An extensive computer search of the literature was conducted, and relevant books and articles were summarized. Additionally, primary prevention programs serving young children in Ontario and other jurisdictions were also identified. Interviews conducted with key informants from approximately 40 of these programs further informed the Technical Advisory Group on the operational and community involvement considerations that contribute to successful programs. The background and process of this review is described in Chapter I of this report.

Chapters II, III and IV review the literature, summarize key findings, document limitations to the research, describe the components of a good program, and recommend future directions for research and programming for each age-level subgroup (i.e., Pre-natal/Infants, Preschool, Primary School). This is followed by Chapter V which examines the limitations to research in primary prevention for young children in general. In Chapters VI and VII, the Community Involvement and Research Issues subgroups developed guidelines important for the success of any primary prevention research demonstration project.

Chapter VIII begins by summarizing the themes common to primary prevention programs for young children across the three age groups: infants, preschoolers and primary school-age children. On the basis of the common themes, and drawing upon the limits of past research, this "Better Beginnings, Better Futures..." paper concludes by proposing an Integrated Model for research demonstration projects.

D. **GOALS OF THIS PUBLICATION.**

Primary prevention in mental health is: "Actions designed to reduce the incidence or prevalence of emotional and behavioral problems in the general population." To date, prevention efforts have been directed primarily toward "at-risk" groups. However, as will be discussed later in this document, there is an increasing interest in the potential value of directing efforts to all members of a population group without attention to defined risk.

Primary prevention of psychological disorders may be accomplished by decreasing the stress or physical vulnerability of an individual/community, or strengthening the individual's/community's coping skills, social support and self-esteem, or a combination of both. Most of the literature and programs reviewed by the Technical Advisory Group fit into such a model of primary prevention.

In approaching the review of research and existing programs in the province of Ontario, and in proposing important criteria to evaluate proposed programming, the Technical Advisory Group established the following **FOUR OBJECTIVES** for recommended primary prevention programs:

- **To provide all children with a favourable environment in which to develop;**

- **To assist the family in support of the child, by a) providing opportunities for parent(s) to enhance their competencies and confidence in their role as parent(s), and b) reducing stressful family environments, thereby strengthening the family;**

- **To promote cooperative efforts between any new program and existing community services and resources whose mandate involves children and families; and**

- **To provide a context for long-term Canadian research which evaluates the effectiveness of primary prevention with children.**

Therefore, the following review and subsequent recommendations are grounded on the Goals and Principles established by the Ministry of Community and Social Services, and within the framework of the Objectives established by the Technical Advisory Group.

II. PRE-NATAL/INFANT DEVELOPMENT PRIMARY PREVENTION PROGRAMS

The literature in pre-natal/infant programs can be characterized by its diversity and richness, but also its inconsistency in scope, method and findings. In addition to interviewing nearly 10 selected Ontario infant programs, this sub-group reviewed over 30 publications describing North American primary prevention programs for infants. Additionally, some programs from England and Australia were examined. On this research base, an in-depth review focused on a sub-set of 10 programs, selected because of the:

- o uniqueness of program components;
- o strong research design;
- o longitudinal follow-up of children and families; and/or
- o use of multiple relevant outcome measures.

All programs were called infant programs and centred on infancy in their delivery models. It should be noted that the age of children served by these infant programs ranged from pre-conception through age four. In other words, some programs began before conception, others began pre-natally and others began at birth. Similarly some programs ended when the children passed their 1st birthday, others ended at age two and others at age three or four.

Most programs consisted of a nurse or non-professional home visitor, who called on at-risk families after the birth of a child. Infant programs often focused on such risk factors as inadequate diet, family planning, social isolation of the mother, attachment and bonding, employment training of mother, and education regarding appropriate physical, socio-emotional, mental, behavioural and cognitive development of infants. The policy context for research on pre-natal/infant development programs arises mainly from preventing low birth weight babies, preventing physical and mental disabilities and preventing child abuse. The Pre-natal/Infant Development Subgroup examined this literature for results appropriate to preventing emotional and behavioural problems and promoting optimum child development.

A. LITERATURE AND PROGRAM REVIEW

Prevention programs for infants are generally theory-driven. Bronfenbrenner's ecology-based theory (1979) views human development as the result of evolving interaction between the person and the environment. Mother-child relations are influenced by significant others (such as father, siblings, grandparents) in the family. Both the social setting of the family and the historical context (e.g., religious background, social service policies, etc.) influence the child's development. Bronfenbrenner suggests effective settings for child development must be linked. Therefore, it is not only the transactions between child and parent that must flow smoothly to promote healthy contexts for development, but also transactions between the parent-child dyad and other members of the family, and between the family and other settings in the community (e.g. service agencies in the larger social system).

Several theories of cognitive and psychosocial development also guide and provide the rationale for infant primary prevention programs. Piaget's theory of cognitive development and the active construction of reality in the child, beginning with early infant sensory-motor explorations (e.g., Piaget, 1952) profoundly influences present conceptions of infant development. The "transactional" theories of development (e.g., Sameroff and Chandler, 1975), and recent research into infant competence build upon the Piagetian view of the infant as an active participant in the developmental process. Additionally, early psychoanalytic theories of the psychosexual stages of childhood spawned theories of psychosocial development such as that of Erikson, (Erikson, 1950). Bowlby's synthesis of psychoanalytic and ethological thinking about attachment (Bowlby, 1969) as well as the research generated by Mary Ainsworth and others (Ainsworth, Blehar, Waters, and Wall, 1978) emphasize the importance of positive, affectional ties during the early years for subsequent socio-emotional adaptation.

The following are five model prenatal/infant development programs:

1. **THE PRE-NATAL AND EARLY INFANCY PROJECT (Olds, et al. 1986)**:

This project was selected as a "model" primary prevention project by the American Psychological Association (Price, Cowen, Lorion and Ramos-McKay, 1988) and represents an excellent example of ecological theory in practice. The project, implemented in a high risk, semi-rural Appalachian community of 100,000, provided a program for first time poor single mothers, under nineteen years old, and at twenty-five weeks gestation or less. The length and intensity of the program were experimentally manipulated.

The Pre-natal and Early Infancy Project stresses a strong outreach component, including frequent home visits by nurse-home visitors. While visiting families every other week for approximately one and one-half hours, the nurses focused on three activities designed to enhance the conditions for bearing and rearing children. A central aspect of the nurses' approach was to emphasize the strengths of the women and their families.

First, the nurses functioned as home-based educators providing parents with emotional support, information and guidance about factors that affect fetal development, birth and well-being of the child. During the pre-natal period, approximately 85% of the nurses' home-visiting time was devoted to education. Specific objectives included improving women's diets; helping monitor weight gain and eliminate the use of cigarettes, alcohol, and drugs; identify signs of pregnancy complication; encouraging regular rest, appropriate exercise and good personal hygiene; preparing for labour, delivery and early care of the newborn. Special attention focused on helping parents select and use a method of birth control. Parents were encouraged to space their children appropriately so that the mother could recuperate from pregnancy and both parents could devote more attention to the baby. Underlying all activities was

the objective of enhancing the health and development of the child by improving his/her physical environment and the qualities of parent-infant attachment.

Additionally, families were also provided with free transportation for regular pre-natal and well-child care at local clinics. The nurses visited weekly for the first month after delivery, and on a schedule of diminishing frequency until the infants were 18 - 24 months of age, when visits were made every 6 weeks.

In order to extend and intensify their work with the mother, the nurses encouraged the assistance of relatives (husbands and mothers) and close friends (including boyfriends) to participate in the home visits, accompany the mothers to childbirth classes, help with household responsibilities and act as coaches.

While providing the home-based education program, the nurses often noticed that parents were preoccupied with survival problems (such as marital conflicts and difficulties with finances and housing) that prevented them from translating their knowledge about good health practices and childcare into effective action. Consequently, the nurses linked those families with additional health and human services to begin to resolution these pressing problems. (Olds, 1980)

The program found multiple positive outcomes, especially for mothers with more risks. At the end of three years, there were reduced rates of child abuse and neglect, emergency room visits, accidents and cigarette smoking, as well as better home environments, use of formal services, informal social support and diet. Furthermore, more of the women who remained single, in the most intense program model, returned to work and worked longer than the single mothers in the less intense program models.

Unlike many infancy projects, this project used a powerful experimental design with strong internal validity. Other strengths are the ecologically based principles of program,

community focus, large sample size, variety of outcome measures and inclusion of a cost analysis. Unfortunately, this program is too new to assess long-term effects.

2. **THE CHILD HEALTH SUPERVISION PROJECT (Gutelius, et al., 1977)**:

This project is a similar ecologically-based program, located in a high-risk, black, low income community, with longitudinal follow-up data. The participants were teenage mothers recruited during pregnancy and followed until the child's third birthday. The program consisted of pre-natal health care and counselling, mobile medical coach home visits by a physician and nurse for well-baby medical check-ups, home visits by a nurse to provide cognitive stimulation, supportive counselling and referral to other services, as well as group activities for the young mothers.

The results showed lasting effects for both children and parents. By age five, children from the program experienced fewer separation difficulties and appeared more secure, self-confident and comfortable with adults than non-program children. More mothers from the program enrolled in school and received a high school diploma, than non-program mothers. More fathers from the program maintained jobs and participated in family matters, than non-program fathers.

3. **THE YALE CHILD WELFARE RESEARCH PROJECT (Seitz, Rosenbaum, and Apfel, 1985):**

This is another comprehensive family support project for economically disadvantaged adolescent, first-time parents and their infants from birth to age thirty months with long term follow-up. The program emphasized whole family support, with social work, pediatric care, daycare and psychological services provided according to the needs of each family.

At thirty months, program children showed better language development and adaptive functioning. Five years later, the

program children had higher I.Q. scores, school achievement and school attendance than randomly chosen children from the same neighbourhoods. Program families showed general upward mobility, more mothers were employed, obtained additional education and had smaller families than the comparison families. At ten year follow-up the program children continued to have better school attendance and boys were less likely to require special education than comparison children; also, more program mothers were employed, better educated and had smaller family sizes than did the comparison mothers.

4. **BECOMING A FAMILY PROJECT (Cowan and Cowan, 1985):**

More recently, family systems theory (Minuchin, et al., 1967) has influenced prevention projects. Primary prevention programs which focus on child welfare often centre on family system factors. A consistent theme in this approach considers how each stage of the family life-cycle changes the functioning of the family and how such changes precipitate crises and adjustments. During the transition to parenthood stage, for example, young couples who have experienced difficulty in solidifying their relationships as spouses may have more difficulty opening their couple relationship to develop the new parental roles. One or both parents may avoid parental roles. Spousal roles may be reduced to a few basic functions for each member.

The Cowan and Cowan project is an example of a research demonstration project evolving from the Family Systems Approach. This program's main objective is preparation for childbirth and parenthood. Couples were recruited during the last trimester of pregnancy and follow-up continued for eighteen months. The project consisted of preparation for childbirth in a couple-group setting including marital support and guidance in anticipating the role as a parent.

Measures of self-perception were better in the program parents, and they reported more stable levels of marital satisfaction than comparison couples. The mothers involved in the program were more satisfied with the couple's division of

household labour. Program fathers were less satisfied than comparison fathers initially, but the reverse was true at the end of the study. Thus, the project supports the use of couple-group program components during the transition to parenthood. However, this project was limited to middle-class, intact families, which represents a potential limitation for replication with high-risk groups.

5. **THE MONTREAL DIET DISPENSARY PROJECT (Higgins, 1984)**:

Health care professionals have long been interested in the effects of the physical environment (e.g. drug and alcohol consumption of the mother, smoking and maternal nutrition) on the unborn child. Although some adverse circumstances in the environment cannot be totally controlled, nutrition and other lifestyle factors are potentially alterable during preconception, pregnancy and after the child's birth and will contribute to healthier general development of the child.

The Montreal Diet Dispensary Project is an example of a project which focused on giving infants a physically healthy start. The program provided nutrition counselling and dietary supplements according to individual needs assessments for maternity patients, who were at risk for delivering low birth weight infants. They were identified through a public clinic registry at a large Montreal maternity hospital. Pregnant women using other health services formed a comparison group, although matching was not done on a case by case basis.

Both maternal weight and infant birthweight increased with the length of time in the program. Birthweight and maternal weight gain in the program group were comparable to those of private patients and significantly greater than those of patients in other public services. A decrease of perinatal mortality also related to length of time the mother was involved in the program. The study supports the use of nutritional counselling and corrective diet supplements to high risk pregnant women as important primary prevention program components. These preventive measures were effective if initiated prior to twenty-

eight weeks gestation. There is no long term follow-up of the program participants, nor is there information on other social support systems may have combined with nutrition and supplementation to produce the effects.

B. SUMMARY OF THEMES

The following themes were identified from these pre-natal/infant development programs:

1. EVIDENCE OF BOTH SHORT-TERM AND LONG-TERM EFFECTS:

Short-term POSITIVE effects include:

CHILDREN:

- o better physical health (less chronic illness; fewer disabilities);
- o better nutrition provided by parents;
- o fewer low birth weight babies;
- o fewer feeding problems;
- o fewer accidents and less need for emergency hospital use;
- o less abused by parents.

PARENTS:

- o better networks of social support;
- o greater confidence;
- o improvement in parenting skills;

- less decline in the quality of marital relationships;
- better parent-child interactions;
- less abuse of children;
- longer spacing between pregnancies;
- more frequent, appropriate use of other services.

Long-term POSITIVE effects include:

CHILDREN:

- less hostility, impulsiveness and distractibility in school;
- less delinquency;
- better attitudes toward school;
- better socio-emotional functioning in school;
- higher rates of pro-social attitudes and cooperativeness;

PARENTS:

- more registration in school by mothers;
- more high school completion by mothers;
- higher rates of employment in the family.

2. **COGNITIVE DEVELOPMENT EFFECTS WERE INCONSISTENT.**

Of studies that measured the impact on cognitive development, some studies showed no difference. However, one showed a positive effect at age 3 but no difference at age 5. One study found no difference in grade completion, but two others found better academic competence for children involved in infant programs.

3. **PROGRAMS WITH THE GREATEST IMPACT HAD:**

- o **multiple components** (e.g., home visits, parent-support groups, plus day care or nursery school), and
- o **long-duration** (e.g., two to five years).

4. **ALMOST ALL GOOD PROGRAMS BEGAN PRE-NATALLY.**

One study which manipulated this experimentally found greater impact for the group receiving the pre-natal plus infant program, compared to the group receiving the infant program only.

5. **OUTREACH (HOME VISITS) WERE A MAJOR PROGRAM COMPONENT.**

This component was important for disadvantaged families in all programs with broad impact, at least for the child's first year.

C. SUMMARY OF RESEARCH LIMITATIONS

1. SOMETIMES WEAK EXPERIMENTAL DESIGNS.

Sometimes comparison groups were selected late or not used at all. Randomized control trials were rarely used.

2. GREAT VARIATION IN PROGRAM COMPONENTS.

Some programs were multi-focused, others were single program only (e.g., diet supplementation only; use of parent groups only).

3. SOMETIMES LIMITED FOCUS OF OUTCOME MEASURES.

Some outcome measures were very narrowly focused, which failed to reflect the overall objectives of the program.

4. RARELY CONSIDERED COMMUNITY INVOLVEMENT.

Community involvement was rarely considered as part of program implementation or measured as an outcome, although program administrators and researchers often identify community involvement as an important factor in post-publication interviews.

D. COMPONENTS OF GOOD PROGRAMS

Good programs include components of design, program and implementation issues.

1. PROGRAM DESIGN

a. **High Risk**. The program should be provided in a circumscribed geographic area with a concentration of risk indicators.

b. **Accessibility**. To avoid stigmatization, the program should be open to all pregnant women within a high risk community.

c. **Appeal**. The program should reach and appeal to those at highest risk (e.g. poor, teenage, no family support).

d. **Community involvement**. The program should involve the community, where possible, in all phases of development and implementation: delineating needs, recruiting participants, designing and implementing the program.

e. **Developmental approach**. The program should embody a developmental approach in design, planning and implementation, recognizing the stages of the family life cycle and child development.

f. **Focus.** The program should focus on promoting the optimum development of the child (e.g., physical, socio-emotional, cognitive, communicative) **and** promoting the continued development of the parents.

g. **Continuity**. The program should provide temporal continuity and be delivered primarily through the family, beginning early in pregnancy and continuing through infancy to school age.

h. **Flexibility**. The program design should be flexible and have the capability to respond to the changing needs of the child, family and community.

i. **Sensitivity**. The services should be delivered in a manner that is sensitive to the social and cultural diversity of families.

2. PROGRAM COMPONENTS

The program should provide multiple components of service built upon existing services and resources from which families can benefit. The important components (which are not prerequisites for a good pre-natal/infant development program, but which have been used successfully in some well-documented research demonstration projects) include:

a. **Health care**. There should be an emphasis on both maternal and child health including regular pre-natal care from the first trimester, nutrition counselling, life style counselling; regular infant health assessment, screening and counselling regarding infant feeding, health hazards and safety.

b. **Home visits**. Home visits which begin with the pre-natal period and continue through the first two years are valuable not only for the teaching of parenting skills and for counselling but also as an outreach mechanism.

c. **Good quality alternate child care** (e.g., day care, relief care). This type of care, if implemented so it does not interfere with the development of emotional ties within the family, can facilitate parental employment or schooling or access to better environmental stimulation for the young child.

d. **Family support.** This type of program component should focus on: parents' basic needs (e.g., housing, food, employment), socio-emotional needs (transition issues, crises) and educational needs (as individuals or as a couple); development of problem-solving skills; enhancement of parental self-esteem, empowerment and the development of natural support systems.

e. **Linkages**. The facilitation of access to other needed health, social, educational, recreational resources and the establishment of a collaborative network of service providers are important considerations in programming for infants and their families.

3. PROGRAM IMPLEMENTATION

a. **Staff characteristics**. The program staff should be highly motivated, possessing the following characteristics: sensitivity, enthusiasm, commitment, and relevant life experience.

b. **Staff background**. The staff and supervisors can be appropriately trained paraprofessionals, or professionals (e.g., Early Childhood Educators, Child Care Workers, Public Health Nurses, Social Workers, Child Development Specialists, Psychologists). Volunteers can be used for some functions.

c. **Staff training.** Training should orient staff to the specific values, beliefs and practices of the community. Issues of respect, dignity and empowerment must be included in this staff training. Training should be ongoing.

d. **Staff supervision**. Staff supervision should be sensitive and collaborative.

e. **Staff remuneration**. To promote continuity in the program, all staff should be reasonably remunerated, provided with adequate benefits and reasonable job security.

E. FUTURE RESEARCH DIRECTIONS

To advance knowledge in the area of pre-natal/infant development primary prevention programs, future programs should focus on the following questions:

1. COMMUNITY INVOLVEMENT.

In what ways or through what process would greater community involvement in the design and implementation of a primary prevention infant program influence its short- and long-term impact?

2. HOME VISITORS.

What are the advantages and disadvantages of nurses as home visitors compared to other professional or lay home visitors in terms of costs and outcomes for children and families?

3. EDUCATION/EMPLOYMENT.

Would a stronger emphasis on provision of schooling and employment counselling/opportunities for parents translate into stronger outcomes for children?

4. DEMOGRAPHICS.

What are the differential impacts of primary prevention infant programs for children who experience the following family/child care conditions: father absence, poor housing, teen-age parents, closely spaced siblings, blended families, and/or infant child care?

III. PRIMARY PREVENTION PROGRAMS FOR PRESCHOOL-AGED CHILDREN

The Preschool Subgroup of the Technical Advisory Group reviewed over 30 articles and books in the formal literature and interviewed teachers and program directors in more than 15 Ontario child care/preschool programs. It should be noted that the preschool programs in the review accepted children as young as age one and sometimes provided services for children up to the age of six or more. Most programs, however focused on three and four year old children.

In addition to a preschool teacher in a room with children, good preschool programs also focused on such risk factors as diet (e.g., some preschools provide breakfast and lunch), parent education of appropriate child development, parent isolation and adequate housing. The policy impetus for research on preschool programs arises mainly from preventing school failure, hence an emphasis on cognitive performance. The following section provides a review of research findings concerning the impact of primary prevention programs on cognitive, psychosocial and health measures, as well as on families and communities.

A. LITERATURE AND PROGRAM REVIEW

Research in the area of primary prevention programming for preschool-aged children has been both extensive and intensive. This is due, in part, to the American Head Start compensatory preschool program, begun in the 1960s, for disadvantaged children. The overall goal of Head Start was "to bring about a greater degree of social competence in children of low income families." This focused on the child's everyday effectiveness in dealing with both present environment and later responsibilities in school and life" (Head Start Performance Standards, 1975). Over the past two decades, more than eight million children have participated in this program.

Hundreds of studies, both publicly and privately sponsored, evaluated the effectiveness of these prevention programs. In addition, two major meta-analyses, report aggregate data: the Head Start Evaluation, Synthesis and Utilization Project (McKey, Condelli, Ganson, Barrett, McConkey and Plantz, 1985), which synthesized data from 210

Head Start studies; and the Consortium for Longitudinal Studies (1983), which pooled data, including long-term follow-up, from 12 of the most carefully designed, implemented and evaluated studies. Nine of the Consortium studies were not part of the Head Start program, but were privately sponsored initiatives that were well-funded and professionally staffed.

The effectiveness of primary prevention programs to produce positive changes in the lives of socially disadvantaged children is well-documented (see Zigler and Valentine, 1979, Consortium for Longitudinal Studies, 1983; Woodhead, 1988 for reviews of this literature). High quality preschools are associated with positive outcomes in cognitive functioning (e.g., lower rates of retention in grade, referrals to special education and early school leaving), and social and emotional development (e.g., higher rates of social competence, self-concept, positive attitudes and motivation about school and better relationships with family). Long-term positive outcomes of note are lower rates of juvenile crime and arrest, fewer teen pregnancies, higher rates of employment, earnings and success at becoming self-supporting.

Although some measures are not direct indicators of mental health, the relationship of these factors and the general well-being of the child is apparent. In discussing the long-term effectiveness of preschool programs, Woodhead (1988) suggests the effects are probably not simply attributable to an increase in intellectual functioning "...but in the impact on a complex, interrelated set of events (attitudes, expectations, behaviours) taking place over an extended period of time with the child, school, family and community." These programs have had a broad impact across many areas of functioning of the child and the environment in which s/he operates.

1. COGNITIVE OUTCOMES.

One principal objective of many of the programs reviewed was to produce significant and educationally meaningful gains in children's cognitive performance. Results from the Head Start Evaluation and Consortium projects are unanimous in demonstrating immediate positive effects on children's cognitive

ability. These gains are consistent across programs and cognitive measures (I.Q., school readiness and achievement). However, these gains are not maintained. The Head Start Evaluation shows I.Q. gains disappear early, and achievement and school readiness gains remained one year after exit from the program. By the end of the second year, no educationally meaningful differences were observed on any of the cognitive measures. Similarly, in the Consortium studies, experimental/control differences in intelligence test performance faded by the end of the third to fourth year following the program.

Standardized cognitive measures were frequently chosen as outcome measures because of their ability to predict success in school. Some investigators in the Consortium group included direct measures of school success (e.g., the child passes/fails; is/is not assigned to special education). Consortium results indicate children who attended preschool are significantly more likely to meet minimal school requirements, even when controlling for I.Q.

2. **PSYCHOSOCIAL OUTCOMES**.

Although the principal thrust of preschool programs in economically disadvantaged communities assessed cognitive performance, some research focused on changes in psychosocial development. Seventeen of the Head Start projects reported quantitative data on immediate and long-term effects on self-esteem, achievement motivation and social behaviour. The pattern is similar to the cognitive measures. Immediately following the program, children scored higher in all three areas of socioemotional functioning. Greatest differences were noted in social behaviour, least in self-esteem. This variation may have been due to real differences, or the inability of the tests used to detect differences. The longer-term outcomes show no differences persisted in any area after three years.

3. SOCIAL AND ECONOMIC OUTCOMES.

The Perry Preschool Program (Berrueta-Clement, Schweinhart, Barnett, Epstein and Weikart, 1984) conducted extensive long-term follow-up on social and economic measures of its preschool graduates. Their analysis is unique because they assessed the children's later participation in social and correctional services, as well as employment. Although the follow-up sample is small, the data are compelling. Preschool graduates, compared to control subjects, had higher rates of employment by age 19, fewer months of unemployment following high school, higher average earnings, more money saved and higher job satisfaction. More graduates were self-supporting and fewer made use of social service programs. Graduates also demonstrated reduced levels of antisocial behaviour and misconduct, as indicated by reduced crime rates, arrests, appearances in juvenile court, months on probation, fines, and teen pregnancies.

4. CHILD HEALTH.

The Head Start Evaluation project summarized qualitative health data from 34 studies. They report Head Start children were more likely to receive medical and dental examinations, speech, language and developmental assessments, vision and hearing screenings and nutritional evaluations than were control children. These samples of children also reported lower incidences of pediatric problems. Positive effects were most pronounced with children who had physical handicaps or developmental delays. These data, although limited, suggest preschool programs can be effective as an early detection and intervention with developmental problems. There was, however, no evidence of changes in health behaviour practices at home for families who participated in Head Start health education programs. This may have been due to the lack of emphasis of family health practices in the curriculum.

5. FAMILIES AND FAMILY INVOLVEMENT.

Five Head Start programs provided quantitative data and 70 provided qualitative data, on the impact of programming on families. These programs varied considerably in the nature and extent of parental involvement, which may explain why the results are ambiguous. Nonetheless, several themes emerge:

a. **Parents valued the preschool experience for their children.** Many parents participated in the programs in either paid or volunteer capacities. Children whose parents were highly involved in High/Scope performed better on cognitive outcome measures than children whose parents were not as actively involved. Some investigators (e.g., Wright, 1983) found programming for parents is not an essential ingredient in successful programs. Vopave and Royce (1978), however, in a review of twenty-one Consortium subgroups, noted that having goals for parents was one of the strongest predictors of program effectiveness. Although this is an area where existing data are weak, particularly in documenting the mechanisms of parental involvement, it holds promise for future work.

b. **Changes in parental behaviours were positive, but small.** These results include the following: mothers who actively participated in Head Start were happier, showed greater trust in other people and improved psychological well-being, were less anxious and depressed and had fewer somatic complaints. There were also small positive effects in parental child-rearing practices. There was some limited evidence that Head Start families used the preschool staff for support with personal and family problems, beyond those of an educational nature. Furthermore, their increased use of other health and social services in the community suggest improved linkages with other community resources.

III PRESCHOOL PROGRAMS

In view of the above evidence, it is important that programs support the existing family structure by involving parents actively. Parent programming may take many forms depending on the preschool involved, with the following general guidelines:

a. **Parental participation should be encouraged, but not required**. Participation may be a problem for parents, and if the requirements seem too onerous, they may choose not to participate. An open-door policy is recommended that will encourage and allow them to determine their own degree of involvement.

b. **Working with the children should be a cooperative effort between parents and professionals.** Each has its own understanding and wisdom. Rather than viewing the professionals as having all of the knowledge, the objective is empowering and equipping families to function effectively, independently of the program.

c. **Parenting programs may be educational (didactic) and/or supportive**. Additionally, parent programs may be provided by professionals or lay community members.

d. **It is essential to offer services identified by the parents as useful in their lives**. Many parents have great demands, and any activity presented as an additional task may not be accepted.

e. **Active outreach to parents is important**. Rather than always requiring parents to come to a centre, it is important to reach out and visit parents in their homes. Parents may appreciate lay or professional visits to the home.

6. **COMMUNITY INVOLVEMENT**.

Community-based programming was not central to most of the Consortium studies. Thus, the data available are limited, largely narrative and arise from studies not well-controlled or evaluated. Nonetheless, the indications are that programs generated increased appropriate use of other educational, health and social services in the community. Head Start staff acted as information and referral sources and as advocates to ensure that families received needed services. Important linkages were also made with the local public schools through use of school resources, cooperative policy statements and joint staff training. A positive spill-over effect was found with other non-Head Start families in the community. In situations where there was strong community (and parental) involvement, the effect seemed to be one of making the agencies and institutions in the community generally more responsive to the needs of the poor. Although the research evidence on community involvement is weak, there is no negative, and some small limited positive evidence that community involvement in programming is important.

7. **CURRICULUM**.

There have been four major curriculum comparison studies (Miller and Dyer, 1975; Miller and Bizell, 1983; Karnes, Schwedel and Williams, 1983; and Schweinhart, Weikart and Larner, 1986). The programs varied on many dimensions (e.g., timing and duration of program, home-based vs. centre-based, type of curriculum), making comparability difficult. Nonetheless, the general finding is that there is no one perfect curriculum. Some elements, common to successful programs have been isolated, but no curriculum model is superior to another. Lazar (1983) concludes that it is good that the ideal program is not delineated, because it frees program developers to use the important elements to shape a program uniquely suited to the children, families and communities in which they are working.

8. CHILD DEVELOPMENT THEORY AND RESEARCH.

The single feature common to most effective programs is a strong curriculum, based on child development theory and research. This curriculum has clearly articulated goals and objectives, is carefully implemented and is systematically evaluated (Consortium for Longitudinal Studies, 1983; Woodhead, 1988). This process of design-implementation-evaluation should be seen as an integral part of the program development rather than an element added onto a program.

The program should acknowledge the child as a many-faceted being, and should promote total development by addressing social, emotional, cognitive and physical needs. It is important that the principal objectives of this child-focused programming enhance trust, independence, and initiative in children. These objectives can be readily incorporated into a play-based curriculum in which children are encouraged to actively construct their own understanding of the world. Many investigators (e.g. Wright, 1983, Karnes, Schwedel and Williams, 1983; Deutsch, Deutsch, Jordan and Grallo, 1983; Schweinhart, Weikart and Larner, 1986; Zigler, 1987) suggest these may be more important factors in equipping the children to deal with the school and the rest of their world than specific academic training. Certainly, the High/Scope investigations (Schweinhart, Weikart and Larner, 1986) suggest that programs based on these objectives have a positive impact on reducing delinquency and promoting family relationships.

9. FLEXIBILITY.

Programming offered to children and families should be flexible and offer the family options from which they could select components to meet their individual needs.

10. AGE OF CHILDREN AND DURATION OF PROGRAM.

There is no evidence to support the idea of a critical age period for involvement in a preschool program, nor is there evidence that a short-term program will be as effective as a longer duration program. Given the problems of maintaining effects, it is recommended that prevention programs should be of longer duration than a single year, because several investigators report equivocal results with a shorter program period (e.g., Karnes, Shwedel and Williams, 1983; Juno, 1983; Wright, 1983).

11. LOCATION AND PHYSICAL ENVIRONMENT.

The centre-based program can assist in establishing the program's presence and identity within the community. Key informants from Ontario programs (e.g., Greenway-Chaplin Neighbourhood Association) suggest the centre be readily accessible to the population served. Being physically located within the community facilitates connections with families and with other community resources. It may also encourage families to see the centre as their own.

The physical environment should be inviting, cheerful, safe, and friendly; a place that creates an atmosphere which welcomes people and to which they will want to return.

12. STAFF.

a. **Qualifications**. The staff should be well-trained, with a good understanding of child development and how to work effectively with children. Many programs interviewed, however, reported that they functioned well with a staff heavily supplemented by volunteers, who were trained on the job. The other important qualifications include sensitivity, capability and commitment to their work. Personnel also require an understanding of the population with whom they are working and a familiarity with the community issues

involved. These factors are particularly important in establishing a trusting relationship between the child care worker and child/family involved.

b. **Child-staff ratio**. Vopave, et al. note the most important predictor of program effectiveness is the child-adult ratio. The best programs had ratios of approximately one adult to five children.

c. **Supervision**. Careful and intensive direction by a knowledgeable supervisor should be scheduled with ample time for planning implementation of the program. Good supervision is essential to program success.

d. **Planning**. Staff should be actively involved in program development as well as implementation. This leads to a stronger staff commitment to program delivery.

e. **Continuity.** Preschoolers need continuity of program and staff. This is particularly significant when working with a population for whom the issue of trust may be of great importance (Zigler and Valentine, 1978). Staff burn-out and turn-over are problems which continually plague the child-care profession. Therefore, provision of salary, support and favourable working conditions, should be made to ensure continuity of staff.

B. SUMMARY OF THEMES

1. EVIDENCE OF BOTH SHORT-TERM AND LONG-TERM EFFECTS in high quality preschool programs.

Short-term POSITIVE effects include:

CHILDREN:

- o IQ gains;

- Greater school readiness;
- Higher school achievement;
- More self-esteem;
- Higher achievement motivation;
- Improved social behaviour.

However, one of the consistent findings of preschool programs is that the short term cognitive gains are not sustained after the children enter school. By the third or four year after graduation from preschool the cognitive gains disappear.

PARENTS:

- Less anxiety and depression;
- Fewer somatic complaints;
- More happiness;
- Improved child-rearing practices;
- More appropriate use of health and social services.

Long-term POSITIVE effects include:

CHILDREN:

- Fewer special education placements;
- Less retention in grade;
- Higher employment rates, average earnings, personal savings, and job satisfaction;
- Lower crime rates, arrests, juvenile court appearances,

months on probation, and fines;

- o Lower rates of teen pregnancies;
- o More medical and dental examinations, speech, language and develcpmental assessments, vision and hearing screenings, nutritional evaluations;
- o Especially positive outcomes if they were physically handicapped.

2. GOALS FOR PARENTS IS ONE OF THE STRONGEST PREDICTORS OF THE CHILD'S SUCCESS IN PUBLIC SCHOOL.

Parent involvement in the preschool program is associated with long-term positive educational outcomes for children. However, parent involvement should be encouraged and developed, not mandated, considering differences in ability to participate between families.

3. PROGRAMS GENERATED APPROPRIATE USE OF OTHER EDUCATIONAL, HEALTH AND SOCIAL SERVICES.

High quality preschool programs generated more appropriate use of other educational, health and social services. Also, in programs where there was strong community and parental involvement, the agencies and institutions became more responsive to the needs of the poor generally.

4. **PROGRAMS WERE ESPECIALLY BENEFICIAL FOR CHILDREN WITH PHYSICAL HANDICAPS OR DEVELOPMENTAL DELAYS.**

Preschool programming can be effective as a mechanism for early detection and intervention of children with developmental problems.

5. **TWO-YEAR PROGRAMS WERE MORE EFFECTIVE.**

In order to stabilize the positive child outcomes, the two year programs were more successful than one-year programs. However, it is likely that even longer programs would produce more stable short-term effects and larger long term effects.

6. **THERE DOES NOT APPEAR TO BE AN "IDEAL" CURRICULUM MODEL.**

Different curricula (e.g., Montessori, traditional) demonstrate positive effects on different outcome measures.

7. **THE CURRICULUM NEEDS TO BE HIGH QUALITY, DEVELOPMENTALLY APPROPRIATE AND WELL-ROUNDED.**

Regardless of the curriculum model, the curriculum needs to meet the child's needs across all areas of development.

8. **STAFF DEVELOPMENT AND ADMINISTRATION ARE IMPORTANT SUCCESSFUL PROGRAMS.**

Staff need training, enthusiasm, knowledge and understanding of the community, good supervision, low child/staff ratios and acceptable remuneration for their work in order for children to benefit from preschool programs.

C. SUMMARY OF RESEARCH LIMITATIONS

There is strong evidence to support the effectiveness of primary prevention with preschool-aged children. Nevertheless, there are some limitations to existing research.

1. COGNITIVE OUTCOMES.

The major research and program focus is on cognitive performance. There is currently a need for in-depth, well-designed research investigating program effects on the psychosocial well-being of children and the impact on families and the community.

2. SAMPLE SELECTION AND SAMPLE SIZE.

Most research is based on very disadvantaged black American preschoolers. This poses questions of generalizability to Canadian programs. For example, one study encompassing a broader range of cognitive, social and economic outcome variables is the Perry Preschool Program. Although results of this project are compelling, the sample is small and the participants came from a Black American ghetto. The question of generalizability arises. Would a similar program be effective in the Canadian context with a culturally and racially diverse urban or rural poor population?

3. FAMILY IMPACT.

There is no systematic investigation on the impact of programming on families, although there are limited descriptive data. This research should be sensitive to the dynamic interaction between child, family and community.

4. COMMUNITY INVOLVEMENT.

This factor has not been a focus of preschool research, although community involvement was a major principle of the Head Start project. There are many questions to be examined in this area ranging from mechanisms for optimal community involvement through evaluation of the reciprocal influence of community on program and program on community.

D. COMPONENTS OF GOOD PROGRAMS.

The literature and program review of preschool programs for children in economically disadvantaged communities highlighted salient elements of effective programs:

1. PROGRAM DESIGN

- Available for a minimum of two years.
- A 'holistic' approach to the child and family.
- Flexible and open to change to meet the child and family's needs as they become apparent.
- Emphasizing health and education, rather than pathology.
- Well-developed curriculum, with clearly stated goals, carefully implemented and thoroughly evaluated. The content of the program is not as important as how it is done.
- An emphasis on meeting the developmental needs of the preschool child, including programming to encourage independence, self-esteem, effective problem-solving skills, attention and task persistence.

- Community needs assessment and cooperation of the community in program design and development.

- Planning, in collaboration with existing resources in the community, to avoid overlapping services and to promote collaboration.

- Integrated with other helping resources and services in health, housing, education, social assistance and employment.

- Continuity from infant programs to preschool programs, and from preschool programs to primary school programs.

- A reasonably complex and well-designed evaluation.

2. **PROGRAM COMPONENTS**.

- A child-parent drop-in centre, available on the same premises and linked to the program so parents can be comfortable coming with their other younger children or with their preschoolers when they are not in their designated time in the program.

- Parent support and the opportunity for time away from the children.

- Responsiveness to the needs of 'special' children, and the ability to integrate them into the program (with consultation from appropriate outside agencies).

- Promotion of family involvement without requiring it. Family involvement must be seen as non-threatening.

- Relevance of programs for economically disadvantaged families, e.g., employment support and literacy, as well as parent/child training.

3. PROGRAM IMPLEMENTATION

- o Open year round, and involving an outdoor summer program.
- o A flexibly arranged full and half day program.
- o Qualified staff, experienced in their areas of input to the children.
- o Staff knowledge of the community.
- o Encouragement of staff participation in management.
- o Adequate preparation time for staff.
- o Ratios of staff to pupil not to exceed five children to one staff in the day care or preschool setting.
- o Fostering parent involvement within the management of the program.

E. FUTURE RESEARCH DIRECTIONS.

There are a number of research issues which, if addressed in a prevention programs in Ontario, would add to the research in this field:

1. DIFFERENT CULTURAL PERSPECTIVE.

Research and programs which dominate the literature are primarily American programs, offered to American children, meeting needs that have been identified in the United States. Much of this research focuses on ghetto populations. There are a number of fairly discrete economically disadvantaged Canadian population sub-groups, for which research on outcome has not been comparatively well-documented (e.g., single mother families, new immigrants, rural, native). Such primary prevention programs can provide a distinctly Canadian approach to service

provision for economically disadvantaged children.

2. HOLISTIC APPROACH.

A good preschool model must be more holistic than conceived in the past because children's emotional, social and intellectual needs are intricately entwined with their family and community. There is a strong rationale for a family orientation to a preschool prevention initiative, based on research in child development that suggests the family has a profound impact on the psychological functioning of the child. Yet previous research rarely focuses on identifying family or community influences or outcomes as identified parts of a preschool prevention model.

3. COMPONENTS.

What are the most effective components of a preschool prevention program? In answering this question researchers must respond to questions concerning cost effectiveness as well as issues of psychosocial importance to the child and family. The research will have to identify the individual components and carefully document their influence in a variety of settings. For example, components such as a centre-based preschool only, parent-focused program only, centre-based program and parent program combined, curriculum variations, home visits all need further process and outcome research.

4. FAMILY INVOLVEMENT.

What level of parent involvement is necessary for optimal child development as a result of the preschool initiative? Once again, all variations of parent involvement from minimal to maximal on a variety of levels need to be documented and carefully examined. Some types of parent involvement to investigate include drop-in centre, toy library, parent counselling, parent support group, parent as participant teacher.

5. **COMMUNITY INVOLVEMENT.**

What level of community involvement results from parent involvement in preschool/child care for their children? How did community involvement in program planning and development affect outcomes?

6. **CONTINUITY.**

An integrated model from infancy to preschool or preschool to primary school would add to the primary prevention field offering data on programs that began prenatally in comparison to and in addition to the programs which extend as the children grow older. Would the cognitive gains be maintained and would the long-term outcomes improve, if there was continuity of programming between the infancy and preschool, or preschool and primary school?

7. **CENTRE-BASED VERSUS HOME-BASED CARE.**

What are the differences in outcomes between good centre-based and good home-based child care programs?

8. **HOME VISITS**

What would a good home visit component add to the positive outcomes of a good preschool program?

9. **PROCESS EVALUATION.**

There is a need to incorporate process evaluation in any study of the impact of a high quality preschool/child care program.

10. **APPROPRIATE STAFFING.**

The literature on preschool primary prevention programs does not clearly delineate what mixture of staff background, training and experience is important to operate a model curriculum, involve the parents and connect with children's services in the community. This refers particularly to volunteers, early childhood educators, community workers and social workers.

IV. PRIMARY PREVENTION PROGRAMS FOR PRIMARY SCHOOL-AGED CHILDREN

The field of primary prevention for primary school-aged children (i.e. Junior Kindergarten through Grade 3) is at a critical point in its development. Within the past five years there has been an increased awareness of the potential of preventive mental health programs for this age group, as well as a clearer understanding of the requirements for developing meaningful and effective prevention efforts in schools. However, there have been few well developed, implemented and researched programs for children this age, particularly when compared with infants and preschoolers.

The interest in primary school programs arises mainly from preventing juvenile delinquency, substance abuse and school failure when children enter the upper divisions of elementary school and high school. This review is based on an examination of over 50 articles and books and interviews with representatives from 10 programs.

A. LITERATURE AND PROGRAM REVIEW

One major factor associated with the relative dearth of primary prevention programs for mental health problems in school-aged children is the general incompatibility between traditional ideas and training for professional educators compared to mental health professionals (Stillwell, et al., 1985). This discrepancy has begun to erode in the past decade, as the major goals for primary school education expanded from purely academic concerns to include social, emotional and personal development (Ontario Goals for Primary Grades). Concurrently, mental health approaches now value the fostering of normal psychosocial competencies, rather than concentrating exclusively on maladaptive characteristics.

There are two types of primary prevention mental health programs for primary school children:

- **Child-centred**. These programs are designed to enhance children's capacities to adapt effectively and deal with stressful situations and events. These programs attempt to change children directly.

- **Systems-level or "ecological."** These programs are designed to change children indirectly by changing the systems within which children live (Durlak and Jason, 1984; Durlak, 1985).

1. CHILD-CENTRED PROGRAMS

Most programs for school-aged children are child-centered, and focus on particular skills or competencies: affective education, social problem solving, coping with stress and extracurricular skills development (e.g., athletic or artistic skills).

a. **Affective Education**:

Affective education programs strive to enhance children's social and emotional development by increasing awareness and acceptance of how feelings, attitudes and values influence interpersonal and intrapersonal functioning. Such programs assume improvement in emotional and social development will improve behavioural adjustment and lessen the likelihood of subsequent maladaptation. (Durlak, 1985).

The results of affective eduction programs are disappointing and characterized by methodological flaws, such as not collecting follow-up data, no control of non-specific treatment effects and positive results limited to experimenter-derived self-report measures. There is no evidence that program rationale relates to any positive effects.

Despite these shortcomings, affective education programs remain popular because:

1) They coincide with the philosophy of educating the "whole child".

2) Commercially prepared curriculum packages are available (e.g., Developing and Understanding Self and Others --DUSO) which have good face validity for teachers, and are easy to administer.

The enthusiasm of many teachers for affective education gives this approach promise for the future. However, insufficient attention to implementation issues, and lack of effective training and supervision for teachers may be important factors limiting overall effectiveness (Durlak, 1985).

b. **Interpersonal Cognitive Problem Solving (ICPS) Training**:

First developed by Spivak and Shure, ICPS is well-known and adopted in a variety of North American school settings. This approach assumes 1) specific cognitive social problem-solving skills help determine children's adjustment, and 2) improvement in problem-solving skills enhances current adjustment and prevents future difficulties (Shure and Spivak, 1987). The ICPS programs teach young children to derive alternative solutions to interpersonal problems, and to determine the consequences of each solution. The emphasis is on teaching children HOW to think about interpersonal problems rather than WHAT to think.

This approach is intuitively appealing to many preschool and primary level educators because it emphasizes teaching generalized thinking skills, applicable to a variety of academic / cognitive / impersonal problems, as well as social/interpersonal ones. Spivak and Shure's ICPS program has been selected as one of the 14 "model" programs by the American Psychological Association Task Force on Prevention (Price, et al., 1988).

There is substantial research on the impact of ICPS, due to its intuitive appeal and its widespread application in both prevention and early intervention for primary school-

age children. (See Pellegrini and Urbain, 1985, for a particularly good review, but see also reviews by Durlak, 1983, 1985; Offord, 1987).

Reviews ICPS conclude that a variety of training programs have been effective in teaching ICPS skills to children, and that ICPS skill-training may have beneficial effects beyond improved cognitive test performance. However, these positive findings are somewhat weakened because of lack of suitable control groups, and lack of externally valid pre/post assessment. Also, Spivak and Shure are the only investigators to consistently demonstrate that ICPS training improves children's adjustment, and that this improvement is related to acquisition of problem-solving skills.

As Offord (1987) notes, it is unclear whether the significant results reported by Spivak and Shure are due to teacher/rater bias in making adjustment ratings, lack of random assignment of children to treatment groups, unsatisfactory control groups, or the program itself. Additionally, other variables such as the personalities of Spivak and Shure, their ability to motivate teachers, and their encouragement of teachers and parents to consistently give children the opportunity to practice and generalize newly acquired skills in a wide variety of naturally occurring problem situations (so-called "dialoguing") are possible explanations for Spivak and Shure's success where others have failed.

Overall, current evidence fails to support the assumption underlying ICPS programs, that problem-solving skills mediate adjustment (Nelson and Carson, 1988). Gesten and Jason (1987) offer additional suggestions for improving ICPS programs and research: improve the psychometric properties of ICPS measures; integrate social skills and problem-solving training models; understand prior implementation failures; and expand the narrow child focused competence-building approach to include programs at the school or systems level.

Despite shortcomings, systematic training in social cognitive problem-solving skills remains the most popular component of child-focused primary prevention mental health programming with primary school-aged children at this time. Research in this area represents a major challenge for the future.

c. **Social skills/assertive skills approaches**:

Good examples of this type of child-centred training are Rotheram, Armstrong and Booraem's so called Assertiveness Training Program for fourth and fifth grade children, and Elias' Improving Social Awareness - Social Problem Solving Project (Elias, et al., 1986). Both projects incorporate ICPS training, but also include other skill development components: nonverbal behavioural social skills and emotional self control in Rotheram's project; developing interpersonal sensitivity and building positive expectancies for positive resolution of problems in Elias' program.

Rotheram's project reports significantly greater improvements in teacher-rated child classroom conduct, achievement and popularity for the experimental group, and higher grade point averages at one year follow-up. Results from the Elias project indicate children who participated in the 20 sessions of social problem-solving training, as well as five months of application and practice activities, reported significantly fewer stresses in their first year of middle school than a group of children who received only the 20 sessions of social problem-solving training. Both groups reported less stress than a control group. No further follow-up data was collected.

The effect sizes from the Rotheram and Elias projects are not large, and are sometimes difficult to determine. Also, the experimental group which consisted of Grades four and five, is older than the early-school age group, which is the target age level for children in the Coordinated Primary Prevention Initiative. It is unknown whether similar

programs would be effective with younger children.

d. **Skill development in sports and arts**:

This approach assumes that many children at-risk for developing social/emotional and behavioural problems also are far behind their peers children in sport, music and other "nonschool" skills. Programs which concentrate on developing such skills may increase general feelings of competence and esteem in children and "spill over" into other areas of functioning such as school, community, family, and peers (Jones and Offord, in Press).

Although this approach has a substantial intuitive appeal, little systematic work has been reported. An Ottawa project by Jones and Offord (1983) provided a 32 month skill development program for 400 children, 5 - 15 years old in a subsidized housing community. The program consisted of 40 components, mainly sports, but also guitar, ballet, baton, scouting and other nonsport areas. A second social housing community, similar in demographic characteristics, was included as a comparison site.

In this program, children advanced toward higher skill levels and integrated into on-going leagues or other competitive activities in the surrounding community. The program failed to produce reliable differences between the program and non-program children on any of the teacher or parent measures of child behaviour. Participants reported a marginally significant difference in the increase in self-esteem compared to the non-program children.

Unobtrusive outcome measures of antisocial behaviour (e.g., police charges, security violations (such as broken windows and light bulbs, loud noises in the halls and overturned garbage cans and fire calls originating from the social housing communities) showed large and statistically significant changes in the subsidized housing community with the skill-based recreation program. However, when the

program ended, the improvement reversed and changed for the worse. Nonetheless, a cost-benefit analysis indicated potential savings, in reduced vandalism, police and fire costs greatly exceeded the cost of mounting the program.

Thus, the results were highly specific to certain forms and settings of child behaviour and these effects lasted as long as the program itself. (Note: although primary school-age children were included, the results did not differentiate age effects. It is unknown whether the effects on antisocial behaviour in the community, such as vandalism, applied more to older than to younger children.)

e. Summary of Child-Centred Approaches

In summary, child-centered competence/skill development approaches to primary prevention mental health programming for primary school-age children concentrated predominantly on affective education (understanding feeling and emotions of oneself and others) and interpersonal problem solving skills. Additional approaches which are substantially less prevalent are programs which attend to social skills, coping with stress, athletics and other nonschool skills. Because of the somewhat discouraging results of programs directed at individual children, more attention is being given to an ecological analysis of mental health problems and their prevention.

2. ECOLOGICAL APPROACHES TO PREVENTION

In an article reviewing the current status of the field of prevention in mental health, Elias (1987) characterizes the growth of viable, empirically supported, on-going preventive programs as "disappointing". He argues that an important revision for this state of affairs is the idea that most program efforts to date tend to view individuals as "program recipients", and argues that the social setting is the critical context for prevention.

IV PRIMARY SCHOOL PROGRAMS

Although a discussion of ecological analyses is well beyond the scope of this paper, a basic assumption underlying this perspective is that individual functioning must be understood within an environmental context, and that the characteristics of the individual and his/her environment interact in a reciprocal or transactional manner. This has tremendous implications for prevention programs and has sparked lively debate as to whether program efforts should be directed at the individual as in the child-centered programs discussed above, or focused at the level of important systems (family, school, community) within which individuals live. (See Cowen, 1985, Elias, 1987, Rappaport, 1981, and Woodhead, 1988 for discussion of these two perspectives.)

With regard to prevention programs for primary school-age children, the ecological approach argues that to establish more durable and effective programs, the classroom, school and host community characteristics must be an important part of program development and evaluation. Despite this growing awareness of the importance, some say necessity, of incorporating an ecological perspective in prevention programs, there are few examples of such programs for primary school-age children.

In his review, Durlak (1985) identifies three ecological programs to facilitate academic and/or social competence of school children: 1) modifying classroom organization (e.g., open vs. "traditional" classroom organization); 2) introducing various types of interdependent learning activities (e.g., "jigsaw" techniques); and c) the use of peers as tutors. The general conclusion from these studies is that both peer tutoring and interdependent learning have been found to have positive effects, particularly in improved social relationships among peers, as well as in attitudes toward school and self. Academic gains have been inconsistent. None of these studies, however, were long term in nature, so the implications for effect durability are unclear at present.

One program, explicitly developed for school-aged children from an ecological perspective, is the Yale-New Haven Primary Prevention Project, first implemented in 1968 (Comer, 1976, 1980). It is puzzling why this program, operating for 20 years, which

has been replicated in 14 primary schools is not mentioned in most literature reviews on the topic (e.g., Durlak, 1985; Offord, 1987; Price et al, in press). Despite this oversight, it appears to be the best currently available ecologically-based primary prevention project for school-aged children in the published literature and, as such, deserves attention.

Comer's objective is to change the climate of demoralized primary schools in poor and minority communities. His program emphasizes

- o understanding and applying principles of normal child development, and
- o changing the basic way in which schools are managed.

The program model consists of :

a. **School Planning and Management Team**. Directed by the school principal, consisting of 12 - 14 teachers, teachers' aides and parents and a mental health professional, this Team is considered by Comer to be the key and critical project element. The task of this Team is to "interrupt the forces of confusion and conflict and to establish an orderly effective process of education" in the school.

   The Team identifies problems and opportunities in:

   - o school climate and social environment and
   - o academic program curriculum and staff development.

b. **Parent Participation Program**. Parents assist classroom teachers on a half-time basis receiving minimum wage, and form the parent participation program. These parents constitute the core of a Parents Group, responsible for organizing and carrying out the schools social calendar for the year, and developing workshops in academic and social

areas. All parents are actively encouraged to attend social calendar events and other school activities. These events are based on school academic and social skills where possible.

c. **Mental Health Team**. This group of child and family mental health specialists, including a child psychiatrist, a psychologist, a social worker and a psychologically oriented helping teacher, provides direct service to children, prevention services through representation on the Management team, and assistance to staff and parents in working with children. Teacher training and consultation is a key responsibility of this team.

d. **Academic Program**: Based on achievement test performance of all children, academic goals and strategies are established for the entire school by the Management Team. Students at risk for poor performance in reading and mathematics are identified and specific programs developed for their individual needs.

In describing this model, Comer emphasizes the program is a process, not a package of materials, instructional methods or techniques. It is a creation of a sense of community and direction for parents, school staff and students alike. Comer likens the impact which schools have on child development to that of the family. "They don't have their effect through the specific skills they transmit alone, but through their values, climate, quality of relationships." The emphasis in this program is clearly on process and climate, and provides a good example of adopting an ecological perspective.

The results show that the impact is quite remarkable in certain areas. In 1969, the students in the first targeted school were 18 - 19 months behind grade level in reading and mathematics, and there were "serious behaviour and attendance problems". Since 1976 that school has been among the top five schools in the city in attendance and "has not had a serious behaviour problem in a decade." By 1979, students were approximately at grade level in reading and mathematics.

Staff attendance is among the best in the city and staff turnover is among the lowest in the city. Parent participation has been responsible and enthusiastic. Attendance at school events remarkably improved. (e.g., in 1969, approximately 15 parents attended the Christmas Program. Such programs drew 250 - 300 people for the past seven years).

Cauce, Comer and Schwartz (1987) recently published a three-year follow-up study which compared 24 grade seven students who had attended the primary school where the school prevention program had been in operation with 24 students matched on sex and age who attended another local primary school within the same census track. The results indicate highly significant differences on all aspects of the Iowa Test of Basic Skills. The Prevention Group performed at or above grade level in all academic skills. Analyses of school grades were less consistent, showing significantly higher grades for the prevention group in math and overall grade point average, but only marginally significant differences in English. Self-confidence measures showed large and significant differences in school competence and general competence or self esteem.

In general, the results of this project are extremely encouraging. The demonstrated effects both in the participating schools and at three year follow-up suggest the program is quite effective. Beyond these child-related results, possibly the most important project-related results are: 1) **Durability**: the program has operated for 20 years; and 2) **Generalizability:** the program has been successfully replicated in at least one other school board in another geographical area.

Since Comer was heavily involved in the second implementation, the model needs to be replicated without his personal direction. Also, in the three year follow-up study, the failure to find significant differences in perceived social competence was explained by Cauce et. al. (1987) as an anticipated one, "given that the prevention program focused on changing the social environment of the school, and not on the social skills of individual children." Why changing the social environment would not improve perceived social relationships is

not obvious. However, many other program projects have not been effective in changing student or peer ratings of social competence. This remains a major challenge for future programs to address. The positive findings reported in several studies which incorporated interdependent learning procedures within the classroom, particularly peer tutoring and the jigsaw techniques (see Durlak, 1985) warrant replication and extension.

B. SUMMARY OF THEMES

1. AFFECTIVE EDUCATION.

a. There are many affective education programs in primary schools throughout Ontario, and they have a growing appeal to teachers and school boards.

b. There is little well controlled research evidence that these programs influence the development of psychosocial competence or prevent mental health problems.

2. INTERPERSONAL COGNITIVE PROBLEM-SOLVING TRAINING.

a. Children in such programs demonstrate improved ability to use these skills in a variety of situations.

b. There is inconsistent evidence that improved interpersonal cognitive problem-solving skills improve psycho-social competence.

c. There is sparse evidence that such programs effectively prevent mental health problems.

3. **SKILL DEVELOPMENT PROGRAMS**.

Such programs as stress coping, assertiveness training and arts/sports in the schools:

a. Predominantly involve older children (Grades 4, 5, and 6).

b. Have yet to demonstrate lasting impact on psycho-social competence or long term prevention of mental health problems.

4. **SCHOOL ECOLOGY PROGRAMS**.

a. Are more durable and effective programs than child-centred programs of affective education, interpersonal problem-solving and skill development. They require an "ecological" analysis of classroom, school and host community characteristics in program.

b. Improved the overall climate of the school, including teacher morale, parent involvement and student behaviour.

c. Improved the academic performance of students in reading and mathematics.

d. Improved student perceptions of school competence and self-esteem.

e. Demonstrated limited generalizability.

C. SUMMARY OF RESEARCH LIMITATIONS

1. RESEARCH IS SPARSE.

This is a particularly acute problem for research on primary prevention for primary school-aged children. The children's mental health sector has concentrated on treatment/curative activities, while primary school educators emphasized development of cognitive/academic capabilities. However, both disciplines increasingly acknowledge the overriding importance of understanding and fostering optimal social, emotional, cognitive and physical development in all children.

2. ACTIVITIES MAY BE PLENTIFUL.

Due to the Ministry of Education's emphasis on the social-emotional development of children as a part of a "holistic" approach to education, primary school teachers may be introducing many psycho-social activities into their classrooms. However, such activities have not been well-documented, and their impact on the social and emotional development of children, or on the prevention of mental health problems, has yet to be demonstrated.

3. FAILURE TO INTEGRATE CHILD-CENTERED AND SYSTEMS-LEVEL APPROACHES.

To date, prevention programs concentrate on one or the other of these two approaches, with child-centered approaches being most frequently employed. The discussion is often construed as a debate between two factions. However, the two approaches appear to be quite compatible with each other, potentially lending themselves to integration in any given program.

4. NARROW FOCUS.

Most projects have a narrow focus, both in the objectives of the program and in duration. e.g., many programs attempt to increase empathy, or interpersonal problem-solving, or coping with stress or social skills in ten to fifteen group sessions lasting 20 - 30 minutes each. Most programs have not integrated with the existing curriculum or regular classroom activities, thereby failing to provide appropriate opportunities to apply and generalize program activities. Narrowly focused skill-building programs have questionable potential for fostering psycho-social development and/or reducing the incidence of serious, long-term emotional and behavioural problems in high risk children.

D. COMPONENTS OF GOOD PROGRAMS

1. OPTIMIZING THE SCHOOL ENVIRONMENT.

Although little work has been done in this area, impressive results have been obtained by Comer and his colleagues. Using an ecological approach to improving the overall environment of primary schools in an extremely disadvantaged area, suggest that an ideal school-based program should include a component which is designed to address the school environment. Comer sees the School Planning and Management Team as the most crucial contribution to improving overall school morale. Through this team, parents, teachers, teacher-aides, and mental health professionals work with the school principal in addressing all issues concerning child and school functioning. Such an approach has great potential for increasing the effectiveness and impact of any school-based prevention initiative.

2. OPTIMIZING THE CLASSROOM ENVIRONMENT.

In addition to the child-centered competence-building component just described, an ideal school-based program should

incorporate specific activities designed to create a classroom environment which encourages interaction among students, and provides frequent opportunities to practice and apply the psychosocial skills introduced in the program. These components may include: the use of interactive learning activities such as peer-assisted learning, jigsaw techniques, play to encourage personal interactions, and the use of learning centres to allow students to practice decision-making. The classroom environment should allow the teacher to be a facilitator of children's personal, social and cognitive development rather than merely a dictator of information.

3. ENHANCING PSYCHOSOCIAL COMPETENCE.

An ideal primary prevention program for early school-aged children should be based in local community schools and involve systematic learning activities both inside and outside the classroom. These learning experiences should be designed to actively foster the development of social competence, feelings of well-being, security and self-confidence, respect for self and others, and a positive sense of community. These skills and attitudes, are defined as important characteristics of mental health (Report of the National Mental Health Association Commission on the Prevention of Mental-Emotional Disorders, 1987), and are major objectives for primary education (Junior Kindergarten through Grade 3, by the Ontario Ministry of Education, 1985). This shared emphasis between the Ministry of Community and Social Services and the Ministry of Education provides an excellent starting point for fostering collaboration in the development and implementation of school-based primary prevention projects.

Specific curriculum materials have been developed for use with primary school children to teach interpersonal skills, problem solving, empathy, self-awareness, communication skills and skills for coping with stress. However, that for such materials to be of maximum effectiveness, they should be integrated into the regular school curriculum, and not implemented in an isolated or "cook book" fashion. Extensive

on-going training and supervision should be provided to teachers as they incorporate these mental health promotion activities into the child's school experiences.

4. INTEGRATING BEFORE AND AFTER SCHOOL ACTIVITIES

In order to facilitate continuity in the child's day, an ideal program should systematically introduce a variety of experiences and activities for children outside traditional school hours (e.g., before-school supervision, play and rest, with a nutritious breakfast; after-school and summer programs to enhance children's social, physical and artistic competencies). These components should not be isolated from classroom activities. Also, for half day junior and senior Kindergarten children a full day child care program in or near the school could be provided, which complements the child's other daily activities.

5. INVOLVING FAMILIES IN THE SCHOOLS

Many consider this component to be crucial for the success of any program to enhance the psychosocial or intellectual development of children. However, there are few concrete demonstrations of how parents and other family members can successfully integrate into a school-based program. It is not that programs have tried and failed. Rather, most primary prevention programs for primary school children concentrate on developing particular psychosocial skills in children, and neither attempt to involve parents, nor attempt to directly address family issues such as social support for parents, parent education, family conflict, or parents' personal development. Again, this lack of family involvement is in stark contrast to many prevention programs for infants and preschool children.

Given the positive outcomes from Comer's project, an ideal school-based program should actively involve parents at all stages of program development and implementation, and seriously consider incorporating activities which enhance parents' awareness of child development as well as address family needs.

Examples of such activities include school-based family resource centres which organize and/or coordinate day and evening programs for parents and caregivers (e.g., parent training classes, self-help and mutual aid groups for single and separating parents, drop-in activities for moms and tots, and family social events).

The importance of actively involving parents in all aspects of the child's education is highlighted in the Report of the Early Primary Education Project published by the Ontario Ministry of Education (1985). Parent involvement may be a particularly valuable component in attempts to establish collaborative efforts among mental health, education and other community organizations in the development of school-based prevention programs.

E. FUTURE RESEARCH DIRECTIONS

1. INTEGRATE CHILD-CENTERED AND SYSTEMS-LEVEL COMPONENTS.

It is time to implement and evaluate primary prevention programs which improve school and classroom environments, with child-centered competence-building activities in a long-term program which is well-integrated into family and community life.

2. EMPHASIZE SYSTEMS-LEVEL FACTORS.

More emphasis needs to centre on systems-level factors in designing primary prevention programs for this age group. Comer's program can serve as a good model, since it incorporates specific procedures and activities which facilitate school, community and family involvement.

3. ESTABLISH COLLABORATION BETWEEN SCHOOLS AND COMMUNITY.

It is time to build closer collaborative links among the school system, social services, mental health agencies and community groups in developing, implementing and evaluating primary prevention programs for primary-school children. The importance of this collaboration is emphasized in recent position papers authored by the Ministries of Education, Health and Community and Social Services. It is time to actively encourage such collaboration at the local level through primary school primary prevention projects.

4. DETERMINE IMPACT ON MAJOR MENTAL HEALTH PROBLEMS.

There should be an emphasis on determining whether school-based prevention programs actually reduce the incidence of serious, long-term emotional and behavioural problems in children. To date most attention has been given to cognitive/academic outcomes, or to general measures of adjustment such as peer relations or classroom behaviour. Such behaviours and competencies may be hypothesized as important mediating mechanisms which produce later reductions in mental health problems. More time and attention should be directed toward measuring prevention of emotional and behavioural problems.

V. SUMMARY OF LIMITATIONS TO THE CURRENT FIELD OF PRIMARY PREVENTION RESEARCH

While there is a great deal of research on prevention programs for children, there are a number of limitations to the field as a whole. Future research demonstration projects can do much to advance knowledge in the field. In general, the Technical Advisory Group found that across programs for all age groups, the following questions are still unanswered:

A. TO WHAT EXTENT DO PRIMARY PREVENTION PROGRAMS ACTUALLY PREVENT EMOTIONAL AND BEHAVIOURAL DISORDERS IN CHILDREN?

Much of the research comes from other fields, namely education and health, focusing on physical health and cognitive functioning, not psycho-social or social service outcomes. For infant and preschool programs, the positive outcomes for children look very promising, but there are still too few studies to state unequivocally that these programs prevent emotional and behavioural problems.

B. WHAT IS THE SIZE OF THE EFFECT OF PRIMARY PREVENTION PROGRAMS?

Even with the large number of evaluated infant and preschool programs, there are too few such studies that clearly establish the approximate size of expected outcomes, especially the long-term effects. In other words, do children who participate in prevention programs clearly demonstrate meaningful and significant effects relative to comparable children who do not have such an opportunity?

C. WHAT ARE THE MECHANISMS PRODUCING OUTCOMES?

Are positive outcomes produced by moving the experimental groups as a whole to a higher level of functioning or by moving the extreme high risk individuals within the group to a higher level of functioning (which moves the group mean measures)?

D. WHAT ARE THE EFFECTS OF DIFFERENT PROGRAM COMPONENTS?

What could we learn if programs considered comprehensive child-centred and environmental outcomes? For instance, often infant programs focus on physical growth and preschool programs focus on cognitive growth, but few studies focus on physical, cognitive, emotional, social, parental, community and service sector outcomes in the same study.

E. DOES A LONGER TERM PROGRAM PRODUCE LARGER, MORE STABLE OR LONGER TERM EFFECTS?

While there is support of potential long-range positive outcomes, it is not clear whether a longer duration program would increase the size of these effects. Most programs serve children for just one or two years. Yet there is consensus among program providers that short-term programs are not enough to protect children in poor communities. One of the important next steps is to test programs which serve children for four or five years, to see if the effects are greater or longer lasting.

F. WHAT ARE THE COMPREHENSIVE LONG-TERM EFFECTS OF PREVENTION PROGRAMS?

There is very little research on the long-term psycho-social and social service effects of primary prevention programs, and what longitudinal research exists is often flawed by a narrow focus or small sample. Such research often neglects important environmental (e.g., family, community) and program effects (e.g., home visits, family involvement). Additionally, prevention research rarely focuses on service outcomes.

G. ARE PRIMARY PREVENTION PROGRAMS COST-EFFECTIVE?

The costs, cost-savings, cost effectiveness or cost-benefit analyses are limited, in that most are retrospective analyses (completed after, in some cases years after, the children leave the program). However, the cost analyses of prevention programs are promising. The way to improve the knowledge is to conduct cost analyses during the life of the program. Then we can speak more confidently to comparative costs with other programs, long-term cost savings, and benefits to children, their families and their communities.

H. WHAT IS THE RELATIONSHIP BETWEEN RISK FACTORS AND PROTECTIVE FACTORS AND THEIR INFLUENCE ON EMOTIONAL AND BEHAVIOURAL DEVELOPMENT?

The literature documents that risk factors interact with one another, and that while reducing one risk factor helps, reducing several is even more desirable. It is also clear that risk factors and protective factors vary from community to community, family to family and child to child. Primary prevention research needs to carefully document risk factors and protective factors at each level, and study their relationship.

VI. GUIDELINES FOR COMMUNITY INVOLVEMENT

The Community Subgroup of the Technical Advisory Group searched the published literature extensively to identify the strategies associated with effective prevention programs. However, because many successful programs are not documented in the formal literature, it was also necessary to review prevention-related programs currently operating in Ontario and other jurisdictions to learn from their experiences about community involvement. Interviews were conducted with 18 key informants from community-based programs.

A number of themes emerged concerning the importance of community involvement to the success of primary prevention programs. They provide a statement of the values and implicit operational guidelines associated with successful primary prevention programs. These themes furnish a holistic perspective on what makes primary prevention programs "work". They also provide a framework for comprehensive responses to complex community situations.

However, before proceeding with the themes, it is necessary to define what is meant by "community" and "community involvement", and to establish program terminology appropriate to community-based primary prevention programs.

A. DEFINITIONS AND TERMINOLOGY

1. DEFINING 'COMMUNITY.'

Throughout these guidelines, the use of the term "community" requires acceptance of local interpretations of what individual residents might select as their referent points for their "community". Although the provincial government, agencies, institutions and prevention programs can "target" communities by certain characteristics, such as economic disadvantage, this is only one community indicator. Acceptable, self-selected definitions of communities also include characteristics such as common geography and/or neighbourhood, shared interests (e.g., primary school attendance area, ethnicity), or need (e.g., poverty). Communities wishing to become involved in primary prevention research demonstration projects may need to meet the

funder's criteria of risk, e.g., economic disadvantage. However, they should also be encouraged to present their own definitions of the characteristics which represent their sense of "community".

2. THE NATURE OF 'COMMUNITY INVOLVEMENT.'

The nature and extent of local community involvement and decision-making power in all aspects of the prevention program is a critical issue. The range of options for community involvement include the following:

- o an advisory function to decision-makers;
- o a participatory role in design, implementation and evaluation;
- o community ownership and control.

The Community Sub-Group concluded that the last two options each offer opportunities for significant community involvement. The choice of options would depend on local conditions. The first option was rejected as being too limited. Whether either of the last two options is used, **it is important that members of the community have key responsibilities for decision-making about the design, implementation and evaluation in community-based primary prevention programs**.

This approach maximizes the use of available community resources, promotes coordination of services and encourages ownership of the program on behalf of the community as a whole. When community members organize themselves to identify and solve their own problems and achieve shared goals, there is a significant improvement in the community's social conditions and in the residents' quality of life (Wandersman, 1986). These advantages outweigh concerns that may be expressed about the additional time required for orientation, training and support of community participants in decision-making roles, or the tension that may result from changes in the traditional roles of professionals and community participants.

Good community development is needed to provide support for effective community-based primary prevention programs. Rothman has proposed a number of community development models (Rothman, 1968), including locality development, which builds community capacity; social planning, which responds to community problems; and social action, which advocates social change. Each of these approaches use strategies and activities that empower and enable the community to assess its needs and abilities, analyze the options for change, and mobilize resources both from inside and outside the community. By virtue of self-awareness, the community itself becomes a key resource. It is essential that residents in economically disadvantaged communities acquire problem-solving skills that can be employed in a variety of circumstances. Staff time must be allotted for this development.

3. TERMINOLOGY

Community-based primary prevention programs are conceived as part of the evolution and change inherent in any community. Therefore, it is inappropriate to refer to such programs as "interventions", and equally inappropriate to refer to participants as "clients," "recipients" or "patients." The Technical Advisory Group adopted a preference for describing primary prevention programs and participants, in preference to "interventions" and "recipients / clients".

B. SUMMARY OF THEMES

A review of the literature and interviews with Ontario programs yielded one significant limitation: Community involvement was not often emphasized in the design and implementation of the programs studied. Yet, in retrospect, many key informants cited community involvement as an important factor required for the success of programs. The review of the literature and Ontario programs identified the following elements of successful community involvement:

- A **"bottom-up" approach** to program planning and implementation that includes community participants in the identification of needs and goals.

- The **community context**, including culture and values, must be an important aspect of planning and implementation for programs to be effective.

- Programs must be **flexible and responsive** to community needs.

- **Leadership training and support** are essential for meaningful and effective community involvement.

- **Coordination of services** increases comprehensiveness, continuity and effectiveness of programs.

- **Building on community strengths and resources** aids in the development of healthy communities.

- **Changes in community environments or institutions** can sustain short term gains over a longer period of time.

- The **enhancement of social networks** and the resulting reduction in isolation can have positive and measurable effects on individuals "at risk".

- **Primary prevention programs and research should be translated** into the languages spoken in the communities where the programs are located.

C. GUIDELINES FOR COMMUNITY INVOLVEMENT

A number of guidelines emerged from this review of the literature, interviews with key informants and analysis of exemplary programs. The guidelines are described below, with commentary on their implications, and supporting documentation of their significance.

1. **RESPOND TO WHAT PEOPLE WANT FOR THEIR CHILDREN, by understanding the conditions of family and community life.**

To accomplish this, program staff must appreciate how people in a community define their needs and goals, and establish priorities with respect to their children. This denotes that community residents have the ability to recognize and articulate their preferences. They should be supported in communicating their requirements for nurturing their children in their own style and community setting (Fried, 1980; Offord and Jones, 1983; Minister's Advisory Group on Health Promotion, 1987).

This calls for a bottom-up approach in program planning, since successful implementation depends upon community wisdom in addition to professional knowledge and expertise (McKnight, 1977). Planners of prevention programs cannot make assumptions about the kinds of services that best suit the community.

To begin program planning, the intended participants must first identify their needs and goals. This process was identified as a key factor for success in 17 of the 18 community-based programs reviewed in Ontario and the United States. Many program directors feel this is **the essential element** of successful primary prevention programs. An important aspect of this process is focusing on reaching the optimum potential of the community, rather than avoiding problems (Offord and Jones, 1983).

Economically disadvantaged communities often identify immediate and short-term goals and needs which may not be compatible with middle-class values (Iscoe, 1974), but which nevertheless must be met. This key fact is echoed by all programs reviewed and indicates program initiators must respond to the stated values and requirements of the community to succeed in that community.

The degree of community organization can affect the community's ability to articulate goals and needs. Some community members have the confidence and skills to approach

an agency or government body to request specific desired services. Others need more support in this area. Thus, some communities may require training and support while committee and leadership expertise develops.

The review of literature and programs shows that planning programs with, and tailoring programs specifically for, the community makes a unique, two-fold contribution to the resulting program. The program will be:

- **more effective** because it offers the services communities need for their well-being (Hodgson, 1984).

- **more efficient** because providing services that are considered desirable, increases the probability that the services will be utilized.

2. **ADOPT AN "ECOLOGICAL" PERSPECTIVE, i.e., see the child in the context of the family, and the family in the context of its social network and community environment.**

Using this perspective, the child's social network is defined as the child's personal community. It includes "significant others" in the child's life, i.e., parents, relatives, non-parental caregivers, friends, neighbours, teachers, family physicians, clergy, etc. In addition to the child's social network, there is the family's social network, which often includes co-workers of the parents. In the larger community there are institutions and agencies which influence children, their families and their family's social networks. (Bronfenbrenner, 1979; Gottlieb, 1984)

The program goals of all 18 community-based programs which were reviewed, reflect attention to the child and family, the development of an effective social network, and compatibility and interaction with the community at large. Both the literature and program reviews revealed four implications of an ecological perspective for community-based primary prevention programs:

a. **Sensitivity to the social context, particularly in rural and ethno-cultural communities**.

Family relationships and social networks differ in rural and urban communities, as well as among populations with different ethnic and cultural heritages. Accordingly, family life values and patterns will differ, calling for ecologically sensitive approaches to prevention programs.

Two examples of sensitivity to cultural differences include: 1) The Canadian Mental Health Association in Ontario, which had its parent education curricula re-drafted by a Franco-Ontarian to reflect the different value system of French-speaking families in Ontario; and 2) a native community leader who adapted Systematic Training in Effective Parenting (STEP), a widely disseminated traditional parent educational package, for use with native parents.

b. **Comprehensive range of programs**.

When the child is seen in the context of the family and the family in the context of its social network and community, opportunities arise for programming on many levels. Programs need multiple components to meet the needs of the child embedded in a family surrounded by its social network. In contrast, uni-dimensional programs focus solely on the child or child/parent, and ignore the influence of the child's family or social network. Research from the Greenway-Chaplin Neighbourhood Association shows that residents who participated in more than one program component reported increased self-esteem and a reduction in emotional distress, compared to residents who only participated in one component of the program.

There are several programs that did not recognize and incorporate the values of the community at large when instituting a primary prevention program. This "missed" step resulted in program ineffectiveness, and often required program directors to redefine their relationship with

participants after considering the values and the historical/cultural forces in there communities.

c. **Awareness of both formal and informal systems in the larger community**.

An ecological perspective calls attention to the interplay between the family and social network, on one hand and the formal institutions of the community on the other. The latter include neighbourhood groups, agencies, local government services, health and educational institutions, businesses and other community resources. Both formal and informal systems require incorporation into community based primary prevention programs.

d. **Universal access**.

Universal access to a prevention program is important to encourage broad community participation and ownership. Even in "high need" communities, with numerous psycho-social risk factors present in the families of a large proportion of the community's children, not everyone is poor, disadvantaged, or otherwise at risk. To be consistent with the ecological perspective, primary prevention programs should be open to everyone in the community, poor or otherwise. This approach reduces the problem of stigma that is often associated with programs intended exclusively for "high risk" populations. If one has to qualify for a program by being seen as disadvantaged, then many people will refuse to participate, rather than submit to such a labelling process.

3. **IDENTIFY AND CAPITALIZE ON THE STRENGTHS of the children, families and community.**

Primary prevention programs should acknowledge and build on the strengths, competencies and adaptive skills of people

within the community. Ontario program coordinators emphasize the need to view the community, the child and the child's family from a perspective of strengths and assets. They observed that all participants have different levels of skills, regardless of financial or emotional constraints, and can make valuable contributions to a program by sharing knowledge and expertise with other participants. For example, some programs call on participants to show others how to cook or provide high quality child care services, while other members offer instruction in home maintenance, literacy, sewing and other valued skills. The development of child, family and community strengths is a vital component of a primary prevention program. Learning and development is facilitated by peers and community members who understand the values and needs of the locale. Utilizing strength thus develops new strengths.

A good example of this guideline is the Galt Helping Network Project in California (Pilsuk, Parks, Kelly and Turner, 1982). The community included a substantial Mexican-American contingency with few recognized leaders, no organization of their own and non-utilization of the Galt project as their social centre. With the help of three local agencies, the Project sponsored a successful Mexican festival celebration. This resulted in an annual festival on a city-declared holiday, run by an independent Latin group with profits supporting a scholarship. By building on the strengths of the Latino segment of the community, the entire community benefited and is now functioning on a more organized and cohesive basis.

When program directors recognize and work with the strengths of the community, program participants also learn to recognize and value their own strengths and assets, to nurture the talents of their children, to prize their relationships with family members and friends (Unger and Wandersman, 1983). Working from strength is a perspective and an attitude that aids in the development of a healthy community (Puska, Salonen, and Nissinen, 1983).

4. **PROMOTE A SENSE OF COMMUNITY by fostering mutual aid, affiliation and involvement in community life.**

A primary prevention program should reduce social isolation, enlarge the support networks of participants, develop confidence in their ability to gain support when needed, provide information about possible supportive contacts outside of their personal networks and promote supportive exchanges between networks in the community (Gottlieb, 1987; Labonte, 1987). Reducing social isolation is the goal of all of the reviewed programs. The links between poverty, social isolation, adverse health and social problems are well documented. The voluminous literature on social support provides convincing evidence that people lacking supportive social ties are at a significant disadvantage in terms of health, morale and self concepts (Cohen and Syme, 1985; Cohen and Wills, 1985; Gottlieb, 1985; Sarason and Sarason, 1985).

Individuals cannot gain support, if they lack confidence to seek it, and if the support is not relevant to their perceived personal and family needs. One method of overcoming this problem, is to provide opportunities to exchange meaningful support with peers who share similar values and common goals for themselves and their children. In short, by incorporating mutual aid and by staffing the program with residents from the community, support is generated that is congruent with the cultural characteristics and family needs of the local community.

It is noteworthy that support can arise through many different means of social participation. As Gottlieb (1988) points out, it can be a bi-product of involvement in voluntary organizations, such as block clubs and parent-teacher organizations, or a direct product of involvement in mutual aid acts, such as parent-support groups and one-to-one peer helping relationships. By providing multiple opportunities and a range of vehicles for the development of supportive relationships, there is a greater chance of gaining the participation of people with different skills and styles of relating.

5. **PROMOTE EMPOWERMENT by creating community processes that foster competence, control and involvement.**

Promoting empowerment means allowing, encouraging and assisting people to find ways and resources to enhance their lives through the use of their own personal and collective talents and energies (Fried, 1980; McKnight, 1985; Ministry of Community and Social Services, 1988). Empowerment means people taking charge of their lives, responding to their own problems and taking the steps necessary to achieve their aspirations and contribute to the growth of others (Fried, 1980).

Empowerment within a primary prevention program focuses on identifying and marshalling resources, distributing them equitably, and investing them wisely. The heart of this process is community ownership and control of its endeavours and destiny (Health and Welfare Canada, 1986). This process leads to pride in achievements, services and programs, and prevents the transfer of responsibility for changes to outside experts. Key informants reported many examples of parent participants who gained the self-confidence necessary to upgrade their education, find and retain employment, receive vocational training, and move out of the cycle of poverty. This strategy is emphasized by the report of the Ontario Social Assistance Review Committee (1988).

Cultivating local organizational leadership for prevention programs also leads to a greater sense of empowerment. Providing training, support and the opportunity to develop leadership abilities contributes to a process whereby community members become better equipped to bring about further social and community development.

Many projects have committees to review and make changes in programs. Members develop administrative, financial, public speaking and leadership skills (e.g., Delta Child Care Network; Prevention Initiative Consultation Program). Often program committee members have moved on to a board of directors where they gain broader exposure to other community service sectors, as well as the opportunity to develop negotiation skills with other agencies and institutions in the community.

A specific concern or issue identified by the community is often the starting point for community development. The process begins with an initiator who may be a respected leader from the community or a facilitator from outside the community. The infrastructure of the community is defined, key informants are identified and incorporated into the process, and local citizens become active participants in problem solving.

For example, the York Region Children's Services Committee conducted a service utilization survey and an economic and demographic analysis, which identified Georgina Township as a high risk community. The Family and Children's Services of York Region then seconded a community worker to Georgina for two years to work with the residents to develop a local resource centre to provide immediate support and assistance to families in need, as well as a variety of prevention programs with support from The Community and Neighbourhood Support Services Program (MCSS). The centre functioned increasingly as a reference point for problem-solving and planning in this rural community.

The experiences of the Greenway-Chaplin Neighbourhood Association (1988), the Westview Community Venture (1981), and the Highland-Stirling Neighbourhood Project (1982) demonstrated better emotional adjjustment, higher levels of self-esteem, increased social support and increased familiarity with community resources of participants over the course of their involvement with these community-based program. Additionally, these programs were responsible for developing new community and program leaders. These are impressive steps, considering that the Westview Community Venture program operated in the highest concentration of publicly assisted housing in Canada.

6. **PROVIDE FLEXIBILITY AND DIVERSITY IN PROGRAMMING as needed to adapt to community environments.**

A prevention program should strive for a "good fit" with the local social ecology. This requires flexibility of program components, resource materials and program information to reflect the different cultures and values of communities.

Many of the programs began by offering services only for preschool children or their mothers. These programs quickly expanded to include components for older siblings, teenagers and services that buttressed family life within the community. In 16 of the 18 programs reviewed, changes were made in implementation, emphasis, program components, relationships to other agencies or program scope. Program coordinators of the two programs that had not undergone changes explained that because the programs were relatively new, it was too soon to determine what further additions, adjustments and changes might be made.

Any new prevention program in Ontario should be prepared to support expansion or further development of programs already in place. For example, a program serving preschoolers and their families may want to expand to serve the early school age children in the families already involved. Alternatively, the prevention program may want to develop the capability to work with parents who are expecting babies. This approach provides greater continuity of services and suggests that programs serving children through a longer period of their development may be most effective.

Examples of flexible and diverse primary prevention programs may include components on literacy, employment training and entrepreneurship, or other components identified by the community as important in creating a healthy family environment for children.

7. COORDINATE WITH OTHER GROUPS AND SERVICES to enhance the quality and continuity of programming.

The coordination of primary prevention programs with social agencies and other community organizations was a common theme in all of the programs reviewed. This means establishing functional linkages and tying programs together to respond to a broader spectrum of community needs. Coordination can take a number of forms, such as agreements to provide services upon referral, pooling volunteer resources, and joint staff training.

Many of the programs reviewed act as a link, assisting program participants to utilize the resources and services of other community agencies and organizations. Not only does this enhance the quality of the overall program, but it also allows the program to expand and develop in relation to the participants' needs and interests. Program quality is enhanced because those organizations or agencies with the greatest expertise in a particular area are called upon to provide services.

Competition between existing organizations and primary prevention programs should be minimized by ensuring that they serve complementary needs and exchange complementary resources. Certain types of outreach and advocacy functions may have to be performed by the prevention program to ensure good coordination.

In some areas organizational coordination is enhanced by sharing facilities. For example, programs located in areas lacking a community centre often utilize churches and schools to run and coordinate their programs. Other prevention programs, with a co-op or job skills training components, operate in conjunction with local businesses or boards of education.

Prevention programs can also provide leadership in the coordination of a broad range of human services. Good examples are the Delta Child Care Network and the Northeast Neighbourhood Centre. Both services were initially funded by MCSS, but actively worked to coordinate community resources, and inter-agency activities on a larger scale though the North

York Inter-Agency and Community Council (NYIACC). Representatives of these programs now serve on NYIACC's Board of Directors. Such participation has enhanced inter-agency projects, activities, and initiatives for all groups in the community.

8. **FACILITATE ACCESS to other services.**

Primary prevention programs should ensure that participants are able to gain access to health, social and educational services as needed, which are not already a part of the program. For example, children should receive their inoculations and annual physical examinations. It is important that primary prevention programs for young children link with the appropriate health programs providing these services. Most program coordinators interviewed emphasize one of their goals is to involve program participants in the identification and removal of barriers to services and resources from other organizations. This often requires an advocacy approach, which may require training, development and/or assistance by program staff.

For example, residents in a Metro Toronto subsidized housing community became advocates to substantially improve the quality of life for children in their community. Their first priorities were to provide clean neighbourhoods and safe play areas for their children. Therefore, one of their first tasks was to get the garbage collected. Access to this fundamental service was an initial priority for these residents.

Another aspect of removing barriers to services is establishing excellent rapport with agencies that provide crisis intervention and treatment. Establishing access to different kinds and levels of service is a helpful factor in many prevention programs. Many programs reviewed incorporate this approach into their activities.

9. **IDENTIFY HOW INSTITUTIONS CAN ADAPT to provide optimal support to children and families.**

In addition to providing access to community institutions, primary prevention programs should consider opportunities to effect changes within institutions such as schools, hospitals, and social agencies to improve their capability to provide high quality services.

One key institution for primary prevention programs serving children is the school. School failure and poverty are closely linked (Harris, 1987). Because of cultural and economic diversity, many children entering school do not have the same social and cognitive skills, knowledge and proficiency. Primary prevention programs should actively work with educational institutions to adapt education to the diverse needs of their communities.

Change is difficult for community institutions because it requires the acknowledgement that community needs may not be effectively addressed by the institution. For example, the Ontario Child Health Study (1986) results show a relationship between the rates of school failure and the incidence of poverty. However, the reality of community poverty is not easily addressed by changes in the school as a community institution.

Primary prevention programs should work toward optimal social environments and compatibility between environments. A good example of institutional adaptation is found in the establishment of health care clinics that are appropriate for teens (The Ounce of Prevention Fund). In another community the Ministry of Housing donated a house to provide a home for the Greenway-Chaplin Neighbourhood Asscciation, based on their impressive work within the community. These are examples of prevention programs which identified how the health and housing sectors could adapt to provide optimal support to families and communities.

10. **PROVIDE ONGOING EVALUATION to identify and document the intended and unintended impact on the child, family, social network and community environment.**

Primary prevention programs may have positive, negative or mixed effects on children and their families. The characteristics of the community at large (e.g., urban or rural, number of single parent families) may affect the nature and severity of these resulting problems.

For example, a women's drop-in program sponsored by the Jane/Finch Community and Family Centre, encouraged women to develop a better sense of identity in what they desired for themselves and their families. While this was a positive result for the women who participated, it contributed to marital strain, because husbands and boyfriends were threatened and uncomfortable with changes in their partners. The Program Coordinator now suggests involving men in the program to learn about themselves and to understand and accept changes in their partners. The documentation of the resulting effects on the individual, family, social network and community environment are as important as identifying the impact of a specific program. This is best done with a comprehensive plan of evaluation, such as that described in the Research Guidelines section of this paper.

D. CONCLUSION

Community-based primary prevention programs which incorporate these guidelines will build on the experience of other successful programs, maximizing the probability of positive effects on the health and well-being of the children and families in the community in which it operates.

VII. RESEARCH ISSUES AND GUIDELINES FOR RESEARCH OF PRIMARY PREVENTION PROGRAMS

Research, on primary prevention programs, is important to permit answers to two critical questions:

- o Is the program effective?
- o Is the program expensive?

A primary prevention approach is necessarily a long-term approach, although it should also provide short-term positive outcomes for children. It is expected that important primary prevention program benefits will occur many years, later and in some cases the positive results may emerge in the following generation(s). This requires very careful, well-planned research. Thus, the Research Guidelines first specifies **two central research issues** upon which primary prevention research demonstration projects must rest. The succeeding sections present generic guidelines for program and evaluation development, necessary for good primary prevention research.

A. CENTRAL RESEARCH ISSUES:

1. WHAT IS THE SIZE OF THE EFFECT OF PRIMARY PREVENTION PROGRAMS?

The first research objective of a primary prevention research demonstration project should be to demonstrate how large an effect can be obtained. In the review of the research conducted by the Technical Advisory Group, the longitudinal effectiveness of primary prevention programs in the area of preventing children's mental health problems has not been unequivocally demonstrated. There is, however, enough promise in the available research to support proceeding with primary prevention demonstration projects. The replicability of effects, and particularly the size of the effects, are not sufficiently well-demonstrated in the available literature, and will require special focus in prevention research of the future.

Thus, in the near future, research demonstration projects should contain **all** promising components that can be launched within the budget constraints and with the support of the community. The purpose of such projects should not be to discover the most efficient or leanest package of prevention, but to determine how effective a reasonably-financed, community supported comprehensive program can be. It is unclear at this point whether children in such a program clearly demonstrate meaningful and significant effects relative to comparable children who do not have the opportunity to participate in such a project. Only after the effect size has been clearly demonstrated with a first-rate program, should decisions be made concerning the streamlining of costs and implementation. Thus, the initial goal should be to demonstrate effectiveness. It is premature to focus on efficiency until the effectiveness of primary prevention programs has been sufficiently well-demonstrated.

2. WHAT ARE THE COSTS OF PRIMARY PREVENTION PROGRAMS?

One of the major inadequacies of primary prevention research is the lack of attention to program costs. Often the issue is ignored. When costs are addressed, it is almost always done retrospectively. This requires broad inferences and assumptions which can lead to less accuracy and objectivity. Therefore, because costs are an important factor in demonstrating utility and generalizability of primary prevention programs, it is very important to incorporate cost analyses as significant research goals.

B. GUIDELINES FOR PROGRAM DEVELOPMENT WITH EVALUATION

When considering the suitability of research for a proposed prevention project, the following points should be considered:

1. TERMINOLOGY.

Some modification of standard research terminology is required in community-based primary prevention research demonstration projects, in order to more accurately and sensitively describe the research process. Because "control groups," in the strict sense of withholding or not providing service, is unfeasible and unethical in the applied setting, community-based primary prevention research demonstration projects will require "comparison groups". Comparison groups are children in similar communities/neighbourhoods which have not yet implemented or who do not wish to implement the equivalent of the research demonstration project. Also, because there can be no "random selection of subjects", and because there can be no "true experiment", children and their parents involved in community based primary prevention research demonstration projects are called "participants", not "subjects."

2. RATIONALE.

The rationale for a community-based primary prevention program must be developed in terms of:

- **Perceived Need**. The program addresses a perceived need of the community (e.g., the community thinks it needs a preschool to enhance socio-emotional and cognitive skills).

- **Actual Need**. There is evidence that the perceived need is an actual need and addresses an obstacle for the children in the community (e.g., children from the community actually enter primary school disadvantaged because they are behind in socio-emotional and cognitive skills).

- **Important Need**. There is evidence that the actual need has important negative consequences in both the short and long-term (e.g., children without preschool require more special education, are more often retained in grade, more likely to drop out of school and ultimately require social assistance).

There should, additionally, be a clear rationale for timing of delivery, duration and chronology of program activities.

3. THEORY.

The community-based primary prevention program should be based on a well-established theory. This theory should generate specific hypotheses of the relationships between the program and child, family and community outcomes. This includes identifying risk factors, stressors, and strengths within the population, and specifying outcome criteria. In research language, there should be a clearly documented relationship between the dependent and independent variables, hypothesizing the cause and effect.

4. PROMISE.

Programs must be substantiated with evidence from the literature and program experience, such that there is good assurance that the program will produce positive outcomes for children.

5. GOALS AND OBJECTIVES.

Given that primary prevention programs are designed to produce long-term as well as short term positive outcomes, the program should identify proximal, intermediate, and longitudinal goals and objectives. This includes their detailed description, operationalized into measurable variables.

6. **DESCRIPTION**.

The program should be documented in clear and sufficient detail to be replicated, including a complete description of staffing and administration, aims, objectives and content of each program component, and the implementation process.

7. **COMMUNITY INVOLVEMENT**.

The program should show evidence of local community ownership, or a well-defined strategy that ensures a high level of community ownership and control, especially in the areas of planning and evaluation.

Additionally, the project should include such features as:

- o Location easily reached by participants;
- o Outreach where indicated (e.g., home visits) and tailored to the community; and
- o Program staff who demonstrate good insight into the functioning and needs of the community.

8. **COST**.

The costs of the program must be reasonable and within the budget constraints of the demonstration project.

9. **WORTH.**

The program plan should indicate that net worth (i.e., expected benefits versus costs) will be substantial.

10. **REPLICABILITY**.

The programs should have the potential for replicability in other low income communities in Ontario. This has two interpretations:

- **Prevalence**. The program must address a problem that is experienced in communities throughout the province.

- **Resource availability.** The program can be implemented in a variety of communities, therefore relying on resources readily available on a province-wide basis.

C. GUIDELINES FOR MANAGING PROGRAM EVALUATION.

1. **DESIGN**.

The evaluation should be of the highest quality possible, allowing for the constraints of community-based research. Two major constraints are: 1) the difficulty in conducting a randomized controlled trial (true experimental design) when the unit of study is the community; 2) the dilemma of close adherence to a tight research design and the need to respond to changing family and community needs and concerns. Given those trade-offs, the Research Subgroup recommends the research design of the projects as follows:

- **Comparison group**. Must show some type of comparison group, e.g., children in the same community without the program or children from a different, but comparable community.

- **Pre- and post-program measures**. Must include pre-and post-program measures of the child, his/her family, community and other important environmental characteristics, including measures at pre-determined longitudinal follow-up.

- **Strong design**. Must use the strongest design possible. In descending order of strength these include:
  - randomized control trials (true experimental design)
  - controlled trial without randomization (quasi-experimental design)
  - cohort or case-control study
- **Longitudinal cohort comparison**. Must minimally follow one cohort of children (program and comparison) for the duration of the study.

2. GEOGRAPHICALLY CIRCUMSCRIBED COMMUNITY.

The program should involve a community, in the sense of a circumscribed geographic area. It cannot be focused, for instance, on parents receiving social assistance across a city such as Hamilton or Toronto. It must centre on an economically disadvantaged community, such as low income neighbourhoods, or economically depressed rural areas.

3. SAMPLE.

The sample must be of sufficient size to demonstrate the presence or absence of important effect(s) with reasonable degree of certainty, taking into consideration sample attrition.

There needs to be a clear description of the recruitment of both the sample and comparison groups. The characteristics of sample and comparison groups must be presented in precise detail. A discussion of the major sociodemographic characteristics of the sample to whom the program is offered should be clearly specified. These include: age, sex, ethnic background, socioeconomic class, and family structure. This discussion should also consider differences among the sample in terms of

participants and non-participants, comparisons to the general population and prior experience of participants with previous or similar programs. This aspect is crucial because it is the primary determinant of the generalizability of the study to other communities.

4. **SAMPLE ATTRITION**.

The program design should employ specific techniques to minimize sample loss, especially during long-term follow-up. These should be documented from the initial conception of the project. Also, techniques to evaluate the effects of sample loss at the follow-up phase should be included in the design.

5. **ATTRIBUTION OF RESULTS**.

The design should ensure that effects are attributable to program and not to extraneous internal or external factors. The design should also minimize threats to validity, i.e., maturation, history, testing effect, reactivity, co-intervention, and contamination.

6. **APPROPRIATE STATISTICS**.

Most analyses should be uncomplicated and easy to understand. There should be an emphasis on descriptive statistics. The independent and dependent variables should be precisely defined. When more sophisticated statistical tests are used, as inevitably required in longitudinal research projects, every effort should be made to provide careful explanations in layperson's language.

7. **CREDIBILITY**.

Research must be designed to be as objective as possible to ensure the perceived credibility of the results. At the same time, long-term evaluations require considerable collaboration between the program staff and the researchers. The program evaluators and program directors need to carefully balance these issues. It is suggested there be an independent advisory board to both critically review and be a resource to the researcher and program directors of the demonstration project.

8. **PUBLICATION**.

Dissemination of results, conclusions and lessons learned from primary prevention research demonstration projects should be actively encouraged. All stakeholders should be assisted in preparing presentations and reports on the project to a variety of lay and professional audiences.

D. **GUIDELINES FOR EVALUATION IMPLEMENTATION**.

1. **STRUCTURE**.

Implementation of community-based primary prevention research demonstration projects requires a more collaborative, less hierarchical structure of evaluation implementation than is usually attained in a university-based research setting. First and foremost there must be a collaborative relationship between the researcher and the program director. But there must also be a collaborative relationship between the community leaders, program participants, project personnel and both the program evaluator and program director.

This collaborative approach to evaluation must be balanced by an effort to obtain "objective" research findings. There is some evidence that evaluators internal to the project may become biased in favour of the program's perspective, or conversely,

researchers may become mistrusted by other staff. Nonetheless, in weighing the advantages and disadvantages of internal versus external evaluators for community-based primary prevention programs it is suggested that programs adopt a collaborative approach with an internal evaluator, and arrange for review by an external board. This board of advisors can both critique the research and operate as a resource to all of the program's stakeholders. The external research review board can provide objectivity and specialization pertinent to the research as well as continuity throughout the life of the project.

2. **STAKEHOLDERS**.

To increase the probability of successful, meaningful research outcomes all steps of the evaluation and research must involve the five sets of stakeholders, i.e., the program director, the program evaluator, the program staff, program participants and community leaders. This entails involvement in all aspects of evaluation from developing techniques to reduce sample loss, to selecting measures, to reviewing preliminary results and deriving implications from the data.

There have been too many instances where an otherwise good program evaluation failed because it was rejected by a group of stakeholders. All stakeholders must be committed to implementing a good program and a good evaluation, for the research demonstration project to be effective.

3. **PLANNING**.

Evaluation planning should take place from the conceptualization of each specific demonstration project. Evaluation and program are equally important in research demonstration projects. There should be joint planning of both aspects at every step of the project.

4. COMMITMENT

There should be evidence of commitment to the evaluation by program personnel (including administration) and throughout the life of the project. Evaluation should be viewed as a collaborative effort to provide a quality program, rather than a means of ascertaining personnel performance.

5. ROLES.

There should be clearly defined roles and responsibilities for all involved in the evaluation. This includes professionals, non-professionals and volunteers, as well as participants, their families and board members.

6. COMPARABILITY ACROSS PROJECTS.

If there is a multi-site research demonstration project, there should be clearly designated responsibility for ensuring comparability by providing parameters for the evaluation, planning for specific projects and for drawing conclusions from the final project evaluations.

E. GUIDELINES FOR MEASUREMENT SELECTION AND USE.

1. TYPES.

The major goal of the research demonstration projects described in this publication is to reduce emotional and behavioural problems in children. This means core outcome measures must reflect this aim. Unfortunately much prevention research ignores socio-emotional outcomes altogether, or provides proxies which are inferential (e.g., less child abuse). In an effort to overcome these problems, outcome measures for primary prevention projects should include:

a. **Behavioural and related social/emotional characteristics** measures and/or structured interviews focusing on the children. These are completed by parents, teachers, public health nurses, child care providers or the children themselves.

b. **Cognitive functioning or school achievement** of the children, because delays in this area can cause, or be associated with, increased rates of emotional or behavioural problems.

Additionally, outcome measures should include such other conventional child-related measures as:

c. **Developmental outcomes**, e.g., meeting population norms for age-specific progress in physical, emotional, social, cognitive, linguistic development

d. **Other measures of children's well-being**: e.g., self-esteem.

e. **Parental attitudes, skills and behaviour**: e.g., parenting skills.

f. **Parental well-being and quality of family life**; e.g., family functioning, maternal depression.

With the emphasis on examining the influence of the child's environment, outcome measures should include such measures as:

g. **Social network support for families**: e.g., instrumental/emotional support of parents by friends and relatives.

h. **Community development effects**: e.g., participation in established institutions such as schools and churches.

i. **Social, mental health, educational and correctional service effects**: e.g., reduced rates for child abuse, reduced rates of vandalism, etc.

Past research has suffered in explanatory power because outcomes were often narrowly defined. However, the recommendations in this report to move toward comprehensive outcomes for both the child and the environment should not be construed as a recommendation which places an enormous measurement burden on the children and their families. It is suggested that during planning and pilot-testing, the issue of comprehensiveness versus measurement burden be carefully weighed by the program directors, evaluators and program participants.

Taking into consideration the outcomes desired, measures should be selected on the basis of the following criteria (drawn primarily from the work of Ciarlo, et al., 1981 and Pancer, 1986):

2. **APPROPRIATENESS**.

a. **Relevance to program goals/objectives**. On the basis of the clearly articulated theoretical model, specify how program activities are to produce the intended effects. Measures should assess not only the ultimate effects, but any intermediate steps and mediating variables.

b. **Suitability**. Should be commensurate with the age, sex, education, experiential background and developmental level of children.

c. **Non-reactivity**. Should respect the participant's right to privacy and confidentiality, and not adversely affect feelings of self-worth.

d. **Cultural sensitivity**. Should be appropriate for the race, class and ethnic group of the children.

Given the child-centred and systems-centred approach required of good primary prevention research, it is particularly important to carefully select measures with:

e. **Multiple perspectives**. Should reflect the perspectives of all major stakeholders in the program and its evaluation.

g. **Multiple levels**. Should assess not only the child, but the family, community and societal context in which the child resides.

h. **Multiple measures, sources and intervals**. When possible, more than one measure of important variables should be utilized for the purpose of cross-validation. Such validation is enhanced when other measures of these variables come from other sources or respondents. Given the longitudinal nature of primary prevention research, it is important to measure the same variable at different points in time, as the child develops.

i. **Comprehensiveness**. Should include other important, but unintended (and potentially harmful) effects of the program, as well as those effects intended by the program.

3. **PSYCHOMETRIC SOUNDNESS**.

a. **Reliability**. Should have temporal stability, inter-rater reliability and internal consistency.

b. **Validity**. Should have criterion-related and construct validity (convergent and discriminant validity)

c. **Sensitivity to change.** Should have a demonstrated sensitivity to program-related change.

d. **Freedom from respondent bias.** Should be difficult to intentionally "fake", either positively or negatively.

4. **ADMINISTRATIVE EFFICIENCY.**

a. **Cost.** Should be relatively inexpensive to acquire and administer.

b. **Ease of use.** Should be easy to understand, and able to be administered in a standardized fashion with a minimum of training.

c. **Time required.** Briefer measures are preferred over longer ones.

d. **Ease of scoring.** Measures that are difficult to score (e.g., those that require factor coefficients or special equipment to score) should be avoided.

5. **UTILITY.**

a. **Ease of interpretation.** Should be meaningful and understandable to non-professional as well as professional audiences.

b. **Short- and long-term effects.** Should measure effects which will occur shortly after the program begins, as well as outcomes expected over the long term

c. **Process measurement.** Should include measures which assess the program's process, as well as its outcomes. This can be the beginning of future steps to determine the efficiency of the program.

d. **Availability of norms.** When possible, select measures which compare program participants to general population norms.

e. **Significance**. Select measures which translate easily into meaningful outcomes. e.g., criminal behaviour and incarceration are significant effects because of the costs to the individual, family, community and society. Measures which can be easily translated into monetary costs are especially significant.

f. **Relevance to theory**. Should assist in assessing the validity of the theory underlying the program's operation.

g. **Qualitative measures**. Should be used in addition to quantitative measures, to provide a richer understanding of the program's impact.

h. **Range of ages**. Select measures which apply over a wide range of ages rather than measures which apply to a small range of ages.

i. **Magnitude of change**. Measures should indicate the amount of program-related change necessary for the program to be considered to have had a meaningful or important impact.

F. GUIDELINES FOR COST ANALYTIC EVALUATION

To this point the presentation of the research guidelines has focused on the conventional child, family, community and program outcomes of good standard research. The cost analysis part of the evaluation will test whether the programs are worthwhile, given all the effects as well as the costs incurred. This approach permits justification of replication, with or without modification, in terms of the costs. Therefore, it is necessary to monitor costs closely and tie them to specific components of the program.

Where possible, expected outcomes should be converted to potential cost-savings or cost-benefits (e.g., reduced use of health services, reduced vandalism rates, reduced rates of special education placement). This permits comparing costs of the program with potential savings due to the program.

The benefit categories needed for comparability with costs may include:

1. **BENEFITS TO CHILDREN AND THEIR FAMILIES**: E.g., reduced burden of suffering.

2. **BENEFITS TO THE COMMUNITY**: E.g., reduced fear of crime; reduced property damage; increased neighbourhood pride.

3. **REDUCTIONS IN GOVERNMENT EXPENDITURES**: E.g., reduced rates of social assistance; reduced rates of low birth weight infants requiring high technology hospitalization.

4. **PRODUCTIVITY IMPROVEMENTS IN THE ECONOMY**: E.g., higher rates of employment.

5. **IMPROVEMENTS IN SOCIAL JUSTICE AND CITIZEN EFFECTIVENESS**: E.g., reduced rates of incarceration; increased participation in wider government and social planning.

These analyses should include benefits/cost to the children, their families (e.g., employment of parents), the families they form (e.g., teen pregnancy of program participants) and to society in general.

While cost analyses require special expertise, it is important for primary prevention demonstration projects to acquire professional guidance in this area from the beginning conceptualization of the study. Accurate cost analyses must begin prospectively, and be thoroughly integrated with the program evaluation.

G. RESEARCH ETHICS

It is clear that in collecting information on child, family and community outcomes, as well as costs, considerable care must be taken to protect the privacy and confidentiality of data. Therefore, primary prevention research demonstration projects should coordinate a plan of research ethics which requires:

1. **APPROVAL BY A RECOGNIZED ETHICS COMMITTEE**: Such committees are available at most universities, that can balance the risks of participating in the study and the potential benefits.

2. **PROTECTION OF RIGHTS OF HUMAN SUBJECTS**:

   a. **The right not to be harmed**: Participants should not be exposed to the possibility of injury beyond every day situations. The risk can be physical, emotional, legal, financial or social.

   b. **Right of self-determination**: Participants should feel free from constraints, coercion or any undue influence to participate. Masked inducements must be strictly avoided.

   c. **Right of privacy, anonymity and confidentiality**: Participants should not need to worry about later embarrassment, or that individual information will be made public or available to others.

   d. **The right to full disclosure** and truthfulness about the study's purpose, methods and findings: i.e., informing participants about:

      - nature, duration and purposes;

      - methods, procedures and processes by which data will be collected, expressed in lay language;

- use to which the findings will be put and any benefits that could be derived;

- any inconveniences, potential harms or discomforts expected, including time spent for which the participants will not be paid;

- possible results/side effects, including being sent more questionnaires;

- alternatives to participating in the study;

- right to refuse to participate or withdraw at any point;

- identities of investigators and how to contact them;

- funding sources and sponsorship.

3. INFORMED CONSENT.

The program participants and comparison participants should give informed consent to participate. The parents may give "informed consent" for their children at the beginning of the study. The evaluators and program directors will work with the other stakeholders in obtaining consent from the children themselves, when they are older.

4. DEVELOPMENT OF CONDITIONS AND JUSTIFICATION FOR COLLECTING INFORMATION ON THE COMPARISON GROUP.

There should be a careful development of conditions and justification for collecting information on the group who will not be involved in the program, but who will serve as a comparison group for program participants.

VIII. AN INTEGRATED MODEL FOR PRIMARY PREVENTION

A. SUMMARY OF THEMES

After reviewing prevention programs for economically disadvantaged young children, with special emphasis on community involvement and research, twelve common themes emerge.

1. CHILDREN'S FUNCTIONING MUST BE UNDERSTOOD WITHIN AN ENVIRONMENTAL CONTEXT.

This view has evolved over the last decade from programs which focused solely on the child, or the child and mother, to programs which view children in the context of their family (however it is structured) and the family in the context of the community.

2. THERE IS NO MAGIC AGE OF DEVELOPMENT AT WHICH PREVENTION WORKS BEST.

To be most effective, prevention programs must address the needs of children and their families throughout their developmental cycle, with special attention to the critical transition periods

3. PRIMARY PREVENTION PROGRAMS MUST BE COMPREHENSIVE.

There exists, in the field of primary prevention, a myth that single, simple, relatively inexpensive, one-shot programs can produce long-term positive outcomes for economically disadvantaged children. Such myths are illusory. In order for prevention programs to produce positive outcomes for a significant number of children, and for those outcomes to last, programs must address a number of important risk factors.

4. **SUCCESSFUL PROGRAMS MUST BE FLEXIBLE IN BOTH PROGRAM COMPONENTS AND SERVICES TO PARTICIPANTS.**

The best prevention programs provide program components carefully tailored to community conditions. Additionally, programs are flexible so that families with greater needs receive greater services. In these two ways, prevention programs provide multiple program and service responses to meet the needs of children and their families within the context of their communities.

5. **THE BEST PREVENTION PROGRAMS COORDINATE WITH COMMUNITY RESOURCES AND LINK WITH ITS AGENCIES/INSTITUTIONS.**

In order to improve conditions and provide the best possible continuity of services, the best programs are not stand-alone programs. They are well-coordinated in the community at all levels. This also implies sensitive attention to the cultural and ethnic composition of each community.

6. **PARENT INVOLVEMENT HAS THE POTENTIAL TO IMPROVE THE QUALITY AND EFFECTIVENESS OF PROGRAMS.**

Parent involvement helps to strengthen the family and consolidate gains made through the program. However, implementation of parent involvement needs to be planned according to community and family goals.

7. **THE COORDINATED PRIMARY PREVENTION INITIATIVE SHOULD BUILD ON EXISTING RESOURCES.**

Because many communities are actively involved in developing and offering prevention programs, it is important to build on these programs. Ontario has a wealth of programs, and these programs should be priorities in research demonstration projects.

8. **UNIVERSAL ACCESSIBILITY IS IMPORTANT.**

In order to avoid stigmatizing children or arbitrarily excluding children through restrictive program criteria, universal accessibility within a given community is important. Universal accessibility also involves a broader population of children and families, which enriches the development of the program.

9. **GOOD PREVENTION PROGRAMS REQUIRE HIGH CALIBRE STAFF.**

Staff must be given adequate remuneration, receive management support, training, and good supervision in order to develop and become knowledgeable about the children, families and communities in which they work. The importance of this factor cannot be over-stated.

10. **A LIMITED NUMBER OF PROGRAM COMPONENTS ARE ASSOCIATED WITH SUCCESSFUL PREVENTION PROGRAMS.**

The components, identified in the literature and program review, associated with successful prevention programs, should be considered as priority components, before designing untested components. Examples of such well-documented components include parent training, child development education, parent support groups, diet supplements, drop-in centres and parent-child resource centres, as well as components which address food and shelter.

11. **GOOD PRIMARY PREVENTION REQUIRES INTER-MINISTERIAL COOPERATION AND COLLABORATION BOTH AT THE CORPORATE AND LOCAL LEVELS.**

It is clear that prevention of emotional and behavioural problems is associated with prevention of negative health problems and educational difficulties, and program models for prevention of emotional and behavioural problems cross inter-sectoral boundaries of service delivery (e.g., pre-natal classes, affective education). Thus, good primary prevention programs require the cooperation and collaboration of the ministries responsible for public health, community health, education, housing and recreation as well as social services.

12. **GOOD PRIMARY PREVENTION RESEARCH SHOULD SHOW SHORT-TERM, AS WELL AS LONG-TERM POSITIVE OUTCOMES.**

The research review conclusively shows that it is not necessary to wait 10 years or more to establish the advantages of primary prevention. The research indicates that to measure the FULL VALUE of primary prevention, it is important to follow program participants longitudinally. Nonetheless, there should be BOTH short-term and long-term pyscho-social and social/mental health service outcomes with good primary prevention programs for young children.

B. THE RECOMMENDED INTEGRATED MODEL

> Upon this gifted age, in its dark hour,
> Falls from the sky a meteoric shower
> Of facts ...they lie unquestioned, uncombined.
> Wisdom enough to leech us of our ill
> Is daily spun; but there exists no loom
> To weave it into fabric....
>
> Edna St. Vincent Millay

As noted by Lisbeth Schorr, in her 1988 book, Within Our Reach: Breaking the Cycle of Disadvantage, "Enough is now known about the risk factors that foretell many damaging outcomes in adolescence to provide the foundation for effective action to reduce their incidence." However, as Schorr implied from the St. Vincent Millay quotation, the next step is to consolidate the information into comprehensive programs serving children and their families. The Technical Advisory Group concludes there is sufficient evidence to support future successful primary prevention research demonstration projects, based on the positive short and long-term outcomes exhibited in past primary prevention research. However, future projects should differ significantly from past projects. This chapter recommends an "Integrated Model," and elaborates its processes and components.

The goal of the recommended Integrated Model is to provide an effective program for children in economically disadvantaged communities at a reasonable cost. This implies:

1. INTEGRATING SYSTEMS AND PROGRAM COMPONENTS.

Within a given community, services to children and families must blend and unite. Integration at a minimum means that service providers will develop common goals, objectives and collaborative plans for meeting these intents. Conceptually, the integrated model moves beyond "coordination of service" to a full an integration of service planning and delivery.

The choice of the Integrated Model is supported by the research on early childhood risk factors. As noted in the research review, the close association between poverty and risk holds for every component of risk --from premature birth to poor health and nutrition, from failure to develop warm, secure, trusting relationships early in life to child abuse, from family stress to failure to master school skills. Programs aimed at any one risk will be helpful, but since the risk factors interact, programs aimed at multiple risk factors should produce greater, more stable and longer term effects.

2. MODELLING TWO TYPES OF INTEGRATION.

There are two types of systemic integration, which are recommended:

--> **Pre-natal through Preschool** (pre-natal to the fourth birthday, or the end of preschool the year of the third birthday).

--> **Preschool through Primary School** (three years old, or the beginning of preschool the year of the third birthday, to the eighth birthday or the end of Grade Two).

This means that a program aimed at reducing risks and promoting optimal development for pre-natal/infant development must integrate with a program aimed at reducing risks and promoting optimal development for preschoolers, OR a preschool program must integrate with a program directed toward reducing risks and promoting optimal development for primary school-aged children.

This implies that the systems providing the pre-natal/infant development programs (i.e. public health or MCSS sponsored infant stimulation programs) must integrate with the system providing the preschool program, or that the system providing the preschool program must integrate with the primary school system (i.e. education).

3. PROVIDING COMPREHENSIVE PROGRAMS

Beyond the basic systemic integration of either an infant program with a preschool program, or a preschool program with a primary school program, communities may include additional program components, appropriate to their particular community. The earlier sections of this report document the types of program components which have been associated with effective pre-natal/infant development, preschool and primary school programs. These include such program components as nutrition and diet supplements, family planning, parent training, child development education, parent support groups, drop-in centres, employment training and parent-child resource centres. In some communities these are run as separate programs. Therefore, to the extent that a community already supports such programs, serving essentially the same families, these programs should be included in such communities' Integrated Model. Additionally, each community should carefully consider what program components are absent, but would be important in producing a positive environment for healthy children. These may be developed for inclusion in the Integrated Model for that particular community.

4. INCLUDING IMPORTANT DISCRETE STAGES OF CHILD DEVELOPMENT.

Together, both types of integrated model permit analysis of the natural history of children in prevention programs from pre-natal through age seven. This translates into nine years of child development for the cost of five years of programming. This natural history includes all of the critical transition periods of social development in early childhood from pre-natal development, birth, assimilation into family, infancy, entry into child care or preschool (if applicable), entry into junior kindergarten or kindergarten, and entry into grade one.

5. PROVIDING SERVICES FOR FIVE YEARS OF CHILDREN'S LIVES.

The five year program is supported by indications that one, two and three year programs are probably inadequate to produce large enough or long-term positive outcomes to financially justify the programs. For example, there is a fall off of positive outcomes when children leave a one or two year program, and the relatively small, though statistically significant, longitudinal differences between experimental and control groups. Therefore, the two types of recommended Integrated Model provide services for five years of children's lives.

6. PROVIDING HIGH QUALITY PROGRAMMING, WITH COMMUNITY SUPPORT AND CAREFUL EVALUATION.

Effective programs are high quality programs, not necessarily high quantity programs. The best research demonstration projects will not try to provide every known component. Each program component should be of the highest quality and carefully matched to community needs. The best projects will have several high quality program components, with committed cross-professional collaboration, community involvement and detailed attention to evaluation and research.

7. REQUIRING 6 YEARS FOR PROGRAM IMPLEMENTATION AND EVALUATION.

This includes at least one year of planning, start-up, establishment of integrating mechanisms and are testing research measures. This one year of development will be followed by five years of program implementation and evaluation. One cohort of children would be followed through the entire five years of each type of Intgrated Model.

8. **REQUIRING LONG-TERM FOLLOW-UP RESEARCH THROUGH THE TEEN YEARS.**

Long-term follow-up is required of both the children involved in the program, and the comparison group children, to determine whether prevention programs in the early years of child development actually prevent emotional and behavioural problems in adolescence and young adulthood.

9. **FIELDING PROJECTS FOR GENERALIZABILITY.**

To further knowledge in primary prevention, it is important to consider fielding the projects in different types of economically disadvantaged communities. This will produce information on the generalizability of the model.

10. **GROUNDING THE INTEGRATED MODEL ON THE COMMUNITY AND RESEARCH GUIDELINES.**

Both the literature review and the Ontario Program review emphasize the importance of involving the community, and conducting good research. Given that the leadership and infra-structure of some communities may be under-developed, such communities may require resources and time for community development. Primary prevention research demonstration projects must continue to hold both community involvement and research as fundamental considerations in implementation.

Through implementing the **INTEGRATED MODEL AND ACCOMPANYING COMMUNITY AND RESEARCH GUIDELINES** in a research demonstration project, the program directors and researchers can look for projects to show positive results in the short, medium and long term. The success demonstrated by these programs will provide hard evidence about the size of the effect and the costs that a good primary prevention programs produce. These results will help provide the basis for future policy and program development in Ontario.

APPENDIX A

EXAMPLES OF WELL-RESEARCHED AND DOCUMENTED PROGRAMS

INFANTS

1. **Pre-natal and Early Infancy Project (Olds, et al., 1986)**

This project was implemented in a high risk, semi-rural Appalachian community of 100,000. It predominantly focused on first time mothers, twenty-five weeks pregnant or less, under nineteen years old, single and poor. The research used a randomized trial design, assigning participants to one of four groups, approximately 100 cases in each group. The groups varied in amount of service provided. The full prevention group received home visits during pregnancy (for prenatal care and education, enhancing informal support, counselling that included designating an individual as a support-person for the mother, linkage with other services) and throughout the child's first two years of life (for parent education, nutrition, and child development; sensory and developmental screening at 12 and 24 months; free transportation and service co-ordination and linkage). The comparison group had sensory and developmental screening at 12 and 24 months.

The interventions were more effective with women at greatest risk (poor, unmarried, under nineteen years). There were fewer cases of child abuse and neglect, better home environments, fewer emergency room visits, lower accident rates, better use of formal services, greater informal social support, improved diet, and less smoking. More unmarried women in the full intervention group returned to work and worked longer than those in other intervention/control groups.

In summary, the strengths of this project are its experimental design, community focus, large sample size and variety of outcome measures. Olds and associates provide some qualitative cost-saving analysis, based on the prevention of child abuse the reduced cost of foster care, as well as reduced costs of welfare as a result of women returning to work. A current weakness is that there are no follow-up data on this study in order to assess its long-term effects.

2. Child Health Supervision (Gutelius, 1977)

This project was provided for high-risk, black, teenage mothers living in a poor community, before their third trimester of pregnancy. The program ended at the child's third birthday. Mother-infant pairs were randomly assigned to either an intervention (n=49) or a control group (n=48). Intervention consisted of pre-natal health care and counselling, home visits by a physician and nurse coach for well-baby medical check-ups, home visits by a nurse to provide cognitive stimulation, unstructured counselling and referral to other services and group-cultural activities.

The results indicate that children from the program received better nutrition at one year of age, had better sleep routines, had better self-feeding skills and fewer feeding problems. They were not different than the controls in Bayley mental and motor scores. At three years of age, program children were quicker to respond in the Stanford-Binet testing and were more active than the comparison children. By age five, fewer program children had experienced separation difficulties and they appeared more secure, self-confident and comfortable with adults.

More participant mothers than control mothers enrolled in some form of schooling and received a high school diploma. More participant fathers than control fathers maintained jobs and participated in family matters. Participant mothers also engaged more in conversation with their two year old children and had more positive attitudes toward their children and child rearing practices.

In summary, the strengths of this project are in its experimental design, the multiple focus of the interventions and the wide variety of outcome measures. Its weaknesses are lack of a wide community focus, no longitudinal follow-up data and no cost analyses.

3. **Syracuse Family Development Research Project (Lally, et al., 1988)**

The target population of this project were teen mothers. The group was mostly black, poor and single. They had less than a high school education. Mothers were enrolled in the program from their last trimester of pregnancy and remained in the program to the child's fifth birthday. There was a follow-up 10 years later. A matched comparison group started when the intervention children were 36 months old.

The intervention consisted of home visits by child development trainers who instructed the mother on sensory-motor games and counselled in personal relations, finances, career changes and education. Parent groups were encouraged to develop formal and informal social supports. Daycare was also offered: half a day a week from six weeks to 15 months of age and full day care from 15 months to 60 months of age. Referrals were made to other community services including: education, nutrition, health and safety, and human services resources.

The results indicated that by the age of 36 months, program children of both sexes obtained higher scores than comparison group children on an intelligence test. However, these differences disappeared by 60 months of age. Program children obtained better behavioral ratings at 36 months, which were maintained through kindergarten. During the school years, positive effects appeared during junior high school for girls, but not for boys. 76 percent of the program girls had a "C" average or better as compared to only 50 percent of the comparison girls. There was less delinquency in the program boys. Both sexes in the program group had more positive feelings about themselves. Their families tended to express more prosocial attitudes related to education and family unity.

In summary, this project's greatest strength is its 10 year follow-up, which provided evidence of longitudinal positive effects for the program group. The combination of home visits and daycare were a strength for this high risk population because the children were provided with high quality learning and play, while mothers pursued their own development, education and employment. A further strength

of this project is its multiple measures for evaluating the effectiveness, however not all intended outcomes were measured. Cost-savings in terms of reduction of delinquency is also noted.

The weakest feature of this project is in the experimental methodology. The comparison group was not selected until the project was 36 months old. The comparison group was matched to the program group on such variables as sex, race, age, birth order, maternal age, education, socio-economic status and marital status at time of infant's birth. However, details of the matching and recruitment of the comparison sample are unclear. Experimental bias cannot be ruled out.

4. **Becoming a Family Project (Cowan and Cowan, 1985)**

The main objective of this project was preparation of parents for childbirth and parenting. Couples were recruited during the last trimester of pregnancy and follow-up continued until the children reached 18 months of age. The program consisted of preparation for childbirth and parenthood in a couple-group setting. Twenty-five weekly sessions lasting about two and a half hours each were equally divided into structured and unstructured discussion periods. The program relied on methods of anticipatory guidance. Support for the marital dyad during the transition to parenthood was also provided. Three married couples, mental health professionals who were specially trained for this program, were the co-leaders for all the program groups.

Measures were taken to assess the marital relationship three months prior to the birth of the first child, at six months, at twelve months and eighteen months. The measures included measurement of parent's sense of self, division of labour or mutual role arrangements, life stress, social support and marital adjustments.

Mothers typically showed a decline in their evaluations of themselves as "parents" and "lovers" after the birth of their child. However, program mothers showed a smaller decline than comparison mothers. They also showed a faster return to pre-baby self-perception. The program mothers were more satisfied with the couple's division of labour of household tasks. Program fathers were

less satisfied than comparison fathers at six month follow-up, but the reverse was true at 18 months. At 18 months, program couples reported more stable levels of marital satisfaction than comparison couples.

The strength of this project is that it supports the use of couple-group programs during the transition to parenthood. In addition, this project used multiple outcome measures relevant to family development. The major drawback of this project is that they provide no outcome measures for the infants or for parent-infant interaction. Additionally, because this project selected only middle-class, intact families this represents a potential limitation in generalizing the model to economically disadvantaged populations.

PRESCHOOL:

1. **The Institute for Developmental Studies (IDS) Program: An Experiment in Early and Sustained Enrichment. Martin Deutsch, Cynthia Deutsch, Theresa Jordan and Richard Grallo. In <u>As the Twig is Bent...Lasting Effects of Preschool Programs</u>, Consortium for Longitudinal Studies, 1983, pp. 377-410.**

The IDS early enrichment programs were implemented in Central and East Harlem in high density inner city neighbourhoods. The programs served both male and female black children, 4 - 9 years old. The children were selected, based on the following criteria: the child met the age requirement for kindergarten entry, spoke English, was in good health with no obvious abnormalities, had parents who would bring them to the program and were of low socio-economic status. The IDS program began in 1963 and children were randomly placed in experimental and comparison groups from a pool of families who opted for special educational programs. The original sample consisted of seven waves for a total 1293 children. All experimental children received the IDS program at a prekindergarten level. Longitudinal follow-up was completed during 1976-1981, testing and interviewing 108 children and 83 parents.

The program consisted of a child development curriculum and a breakfast program. The evaluation tested children's ability and achievement yearly for the first five years of the program's operation. Parental expectations, demographics and life experiences were measured only at the beginning of the program. Follow-up data examined academic progress, self-esteem, family environment, supports and parental expectations.

Initial program evaluations showed: experimental children performed significantly better than their comparison counterparts on achievement, aptitude and personality measures. Follow-up data are gleaned from case studies of 28 subjects and this should be kept in mind in viewing the conclusions. Case studies affirm critical links among various domains of a child's experience and suggest early school-related programs must take into account the influences of other primary learning environments that are part of the child's life context.

The strengths of the project include the variety of preschool components, some good mental health goals and an effort at long term follow-up. Weaknesses of the project include some spotty earlier data due to funding difficulties, and follow-up conclusions based on a relatively small subgroup of case studies.

2. **Compensatory Education in the Preschool: A Canadian Approach; The University of Western Ontario Preschool Project (Mary Wright, 1983 High Scope Press)**.

The program was implemented at the University of Western Ontario Laboratory Preschool and administered by the Department of Psychology. The program served children whose age at admission ranged from 2 years 10 months to 4 years 8 months. The groups were balanced for sex, and heterogeneous for age. The ratio of low income to high income children varied over the years of the project. The proportion of low income children increased as the project continued. In the third and fourth year of the program there were 10 low income children and 18 high income children. Staff to child ratio was 1 to 7 by the third year of the program. The program was play-oriented, individualized and cognitively oriented, with a focus on meeting the needs of the whole child. No formal parent education program was

developed. Parents were encouraged to participate and observe. Low income parents were offered supports (e.g., transportation to events) as required.

The program evaluation design involved internal rather than external controls. For example low income children that entered the program at age four and attended for only one year were compared to low income children who entered at age three and attended for two years. In total, there were 80 three and four year olds, forty from low income and forty from high income homes. There were two groups, those that entered as three year olds and those that entered as four year olds. Sixty children were in group one and twenty children were in group two.

Achievement, intellect, problem-solving, cognitive style and social competence were measured for immediate impact of the program. Findings suggest that two years in compensatory education is better for low income children, but not as important for high income children. Boys tended to have higher social competence scores than girls, with girls improving over the two years. Low income, average ability children did better than low income, low ability children. Follow-up on low income preschool graduates in comparison to low income children with no preschool experience, showed control children did not make as many IQ gains in kindergarten as the preschool graduates. Effects on other areas of competence were more difficult to ascertain over time due to the nature of its subjective assessment. As the years went on, data was gathered on fewer and fewer children.

The strengths of this project are its location in Canada, the thorough description of the preschool program and the attempt at measuring a wide variety of domains. Weaknesses are reflected in the small number of low income children who attended the program, and its location outside a low income community. Although follow-up data were gathered for up to five years, sample attrition negatively affected the validity of the findings.

3. **Consequences of Three Preschool Curriculum Models through Age 15, Lawrence Schweinhart, David Weikart, Mary Larner. Early Childhood Research Quarterly, pp. 15-45, 1986.**

The program was implemented in a small U.S., mid-western city public school system. The program served children who became three years old between 1967 and 1969, living in low socio-economic status families, and who were identified as at risk of school failure according to test scores. Sixty-eight percent of the children were black, and fifty-four percent of children were female.

The experimental design consisted of randomized assignment to three groups, based on three curriculum models: High Scope, Distar and traditional. All three groups of children were relatively similar except for a higher level of mothers' schooling and fewer blacks in the traditional nursery group. The High/Scope and traditional nursery school programs encouraged the children to take initiative, the DISTAR program was more teacher directed.

A control group of three year olds slightly more disadvantaged, but equal in IQ, were compared on intellectual and achievement outcome over time. Of the 68 children in the original sample, 54 were interviewed at age 15. Retention rates for data prior to age 10 were 90% or better. The measures at age 15 consisted of: self-esteem, attitudes and aspects of mental health such as perceived locus of control and attitudes to teachers and learning.

The outcomes were: significant IQ gains for all children involved in the three preschool programs over the controls. However, the mean IQ differences leveled off by Grade Two. There was relatively poor social performance by the Distar group at age 15. Outcomes emphasize that the High/Scope group's good quality, child-centred curriculum best met the growth needs of these children.

The strengths of the study are the decade long longitudinal follow-up, tight experimental control and carefully controlled treatment conditions. The weaknesses of the analysis relate to the limitations of generalization to only well implemented programs. Also, there is criticism of this study because the direct instruction program was poorly developed and not representative of "Distar". Small sample size

for the outcome study is also a drawback. Lastly, although mental health goals are measured, there is some weakness in measurement sensitivity to mental health differences.

4. **Final Report: The Impact of Head Start on Children, Families and Communities: Head Start Synthesis Project, Mckey, R., Condelli, L., Barrett,B., McConkey,C. and Plantz. Health Department and Human Services, June, 1985.**

The Synthesis Project was a meta-analysis of all available studies of Head Start's impact on children's cognitive and socio-emotional development and health status, as well as its impact on families and communities. The database for the synthesis is comprised of 210 reports of Head Start findings. Traditional narrative reviews were used to synthesize 134 of the studies and the remaining 76 provided enough quantitative information for a meta-analysis. The report shows that children enrolled in Head Start exhibited significant immediate gains in cognitive and socio-emotional scores and health status. Longitudinally, cognitive and socio-emotional scores of former Head Start students did not remain superior to those of disadvantaged children who did not attend Head Start. A small subset of studies find that former Head Start preschoolers were more likely to be promoted in school, and less likely to be assigned to special education classes. Head Start also provided health, social and educational services to families and links with community services.

Schweinhart and Weikart (1986) offer a critical evaluation of this major meta-analysis, cautioning that some conclusions may be negative because both high quality and poor quality projects were analysed together. Also, the study designs were not controlled (e.g., experimental/control and pre-post studies were reported separately and readers may be confused, or follow only the results of one of these types).

5. **The Philadelphia Study: The Impact of Preschool on Intellectual and Socioemotional Development. E.K. Beller, in As the Twig is Bent..., by the Consortium for Longitudinal Studies, 1983.**

The program was implemented in an urban slum area identified as at very high risk for employment problems. The community contained a group of long-time unemployed low income, black residents living in substandard housing. The program served three and four year old children without physical handicaps, from low income homes. Ninety percent of the sample were black.

The study employed a quasi-experimental design in which 60 children were recruited for nursery school, and as these children entered kindergarten and Grade one, matched samples of kindergarten and Grade one children were recruited who had not attended nursery school. Fifty-three control group children were added at kindergarten level and 52 children were added at Grade one. All children attended four schools in the area.

A child-centred nursery school program was offered 4 days a week. Teachers conducted home visits and coordinated their services with other relevant sources on the fifth day of the week. A health program was also instituted.

Follow-up began in 1975. Over a two year period, 130 of the original 163 sample children were located. Data was collected on intellectual, social, motivational and emotional functioning. This study suggests that the earlier an economically disadvantaged child enters an organized preschool program, the greater the first year impact on intellectual functioning. However, this finding is not consistent for all intelligence measures. Length of time in preschool is also associated with significant positive effects on school grades, teacher comments and retention in grade. Effects of length of preschool on higher classroom grades over the first four grades were more consistent in girls and levelled off in Grade Four and disappeared by Grade Five. Positive effects on attitudes and intellectual achievement motivation, measured during the first three grades, were associated with any preschool versus no preschool. A significant interaction effect on socio-emotional development was found for preschool with demographic and family variables.

The strengths of the study were their emphasis on mental health outcomes and the attempts to assess the importance of preschool in conjunction with other life events and home life. The weaknesses of the study were the lack of random assignment of original preschool sample and the relatively late age at which the preschool began (they considered kindergarten as the second year of preschool).

PRIMARY SCHOOL:

1. **Shure, M.B. and Spivak, G. (1982). Interpersonal problem-solving in young children: A cognitive approach to prevention. American Journal of Community Psychology, Vol. 3, pp. 341-356.**

This project consisted of an interpersonal cognitive problem-solving (ICPS) program designed to reduce and prevent inhibited or impulsive behaviour in 4 - 6 year old children. The program was implemented in an inner-city area of Philadelphia by nursery school and kindergarten teachers over a two year period. The program served black, low socio-economic status children.

The research design appears to have been a randomized trials design, with children from 5 day care centres assigned to the ICPS program in year 1, and children from four centres serving as controls. The sample size was 113 children in the training component in year 1, with 106 control children. The 131 children who were still available in Year two (kindergarten) were divided into four groups: Twice-trained (n = 39); Once-trained, Nursery (n - 30); Once-Trained, Kindergarten (n = 35) and Never-Trained controls (n - 27).

The training consisted of 12 full weeks of formal scripted sessions. The first eight weeks focused on listening to and observing others and learning that others have thoughts, feelings and motives in problem situations. During the last four weeks, these skills were incorporated into the curriculum to help children consider solutions and consequences relevant to hypothetical interpersonal problems. Pictures, puppets and simple role-playing techniques were used to facilitate ICPS processes.

The outcomes were:

a) ICPS training improved classroom behaviour, an effect which lasted at least one full year;

b) Training was as effective in kindergarten as in nursery school;

c) One year of ICPS had the same immediate behaviour impact as two years;

d) Well-adjusted children trained in nursery school were less likely to begin showing behavioral difficulties over the two year period than were comparable controls.

The strengths of this project were: the relatively large sample size; the apparent ease of training teachers and resulting cost effectiveness; the integration of the training into the nursery school and kindergarten curriculum, the implementation of the training for all children, and the demonstration of primary prevention of behaviour problems in initially well-adjusted children, the availability of detailed teacher's manual.

The weaknesses of this project were: a failure to report any replications (project was carried out in the early 1970's); lack of detail concerning teacher training and on-going supervision; no evidence of long-term effects (e.g., what happened in Grades one and two); question of generalizability to Ontario.

2. **Rotheram, M.J., Armstrong, M. and Bogram, C.; (1982), Assertiveness training in fourth and fifth grade children. American Journal of Community Psychology; Vol. 10, pp. 567-582.**

The program was implemented in an elementary school in Southern California. The program served Grades Four, Five and Six boys and girls. Most came from "working class" homes, 60% were Caucasian, 35% were Chicano and 5% black. The classrooms of children were identified by teachers and school administrators as lacking social skills. These constituted all of the Grade Four and Five

students (four classrooms each) and half of the Grade Six students (two classrooms) at the school.

The research design utilized randomized trials. All children in the 10 classrooms were randomly assigned by classroom to one of three programs (a) assertiveness training (b) a control intervention consisting of a behavioural simulation game and (c) a no treatment control. The intervention procedures were administered for two hours a week for 12 weeks in groups of six pupils each, by 12 advanced undergraduate and graduate students supervised by two clinical psychologists. The sample sizes were four classrooms in the assertiveness training condition, two classrooms in the control intervention condition and four classrooms in the no-treatment condition, involving a total of 343 children.

The assertiveness program was equally effective for various ages and for both sexes, although girls produced more assertive responses than boys after training, while boys were more successful in a group decision task than girls. The outcomes showed assertiveness was higher in classes receiving assertiveness training on the quality of alternatives generated on various measures. Better deportment, higher achievement and higher popularity among the assertion classes were reported by classroom teachers two months after training was completed and again one year later by new classroom teachers who were unaware of the previous year's intervention. Grade point averages increased for the pupils in the assertiveness group at one year follow-up. No significant differences were found among the three groups on measures of self-esteem or peer popularity.

The strengths of the project were: a randomized design was employed; effects were demonstrated one year after training; the training was carried out by under-graduate and graduate students, suggesting low cost; a large sample size.

The weaknesses of the project were: effect sizes were not reported, only statistical significance levels; little indication that the school was in a "high risk" area; on the other hand, the classes were "targeted by teachers and school administrators as lacking social skills", suggesting that this project may be more accurately described as early intervention or treatment-oriented rather than primary

prevention; question of reliability to younger ages and higher risk groups.

3. **Comer, James P., (1985); The Yale-New Haven Prevention Project: A follow-up study. Journal of the American Academy of Child Psychiatry; Vol. 24, pp. 154-160.**

The program was implemented in centre-city primary school, (Kindergarten through Grade Four) in New Haven, Connecticut. The program served all children in the school. Ninety-nine percent were black, and more than 50 percent were from families receiving welfare.

The experimental design was quasi-experimental. All children in the school were involved in the program. Academic achievement scores, attendance, and "school climate" measures were compared to other schools in the city, or changes were documented during the course of the program. The sample size was approximately 400 students per year. The project began in 1968 and has continued to the present. In 1983, 24 Grade Seven students who had participated in the program from 1975 - 1980 were compared with 24 Grade Seven students, matched on age and sex, attending the same middle school and from the same community, who had attended a primary school without the program. There was no report whether the program was more effective for certain students than for others.

The outcomes were substantial short term effects in a) improving overall school climate and social environment as indexed by a variety of measures including student attendance, teacher morale, parent involvement attendance at school/family functions, and behaviour problem reports; b) bringing students in Grade Four up to grade level in reading and mathematics whereas they had averaged nearly 1-1/2 years below grade level before the program began. The results of the students in Grade Seven, three years after leaving the program, demonstrated significantly superior performance in the group who had been involved in the program on standardized tests of language, math and study skills, overall grade point average, and on perceived self-competence.

The strengths of the project are: it has been operating 20 years; it has been extended to other schools in other states; it has demonstrated long term effects in students three years after leaving program; it is based on an ecological theoretical perspective and has a strong community focus; it was implemented in a high-risk community.

The weaknesses of the project are: the demonstrated long-term effects are limited to academic cognitive performance and perceptions of school and overall competence but not in social/emotional or behavioural domains; no specific experiences in learning social, communication or coping skills were employed; very small sample size for the follow-up study.

COMMUNITY PROJECTS

1. **The Child/Parent Component of the Jane/Finch Community and Family Centre**.

The program was implemented in a high risk suburban community of Toronto, characterized by cultural diversity, high rise public housing, high density, a high proportion of families with young children, many of them living on low incomes, and many single parent families. The Child/Parent component of the Centre provides social supports and group programs for isolated women with pre-school children. Through extensive outreach, the centre contacted women in their homes and encouraged them to come and participate in the drop-in or other programs.

The evaluation design involved two sets of interviews over an 18 month period with women who used the Centre's programs and a community comparison group drawn randomly from tax assessment roles. The design called for interviews with 50 women in the user group and 200 women in the comparison group.

The women who used the programs felt their relationships with their children improved and their children learned socialization skills. Centre women were significantly less clinically depressed than the comparison group. Friendships, not professional contacts, were identified as helping to prevent depression.

The strengths of the project were its use of a randomly selected control group and an ecological perspective that viewed social supports and community involvement as key factors. Its weaknesses were in the limited size of the sample, lack of behavioural data on the children, short time frame, and lack of long term follow-up.

2. **Regent Park Nutrition Project**

The Regent Park Sole Support Mothers Group was concerned about nutrition and food quality issues in Toronto's oldest and largest public housing community, home to 9000 people. Almost half are sole support family members receiving Family Benefits. The project focused on the establishment of a community garden, trips to "pick your own" vegetable farms, a feasibility study for a food cooperative, and a survey of food consumption patterns and nutritional knowledge of sole support mothers. Over 120 sole support mothers participated in various parts of the project.

Anecdotal evidence indicates some increased awareness and altered eating habits in the 25 mothers who were most involved. Whether the project had a strong impact on nutrition attitudes and behaviours is uncertain, due to its short duration (four months). However, the literature indicates strengthening social networks, improved communication between neighbours, increased sense of community belonging and sharing, and peer support, may have a positive effect on health. In particular, improved health status has been associated with increased intimacy, social integration, a sense of belonging, the opportunity for nurturing, reassurance of worth, mutual assistance, guidance and advice, and access to new contacts and diverse information.

3. **The Highland-Stirling Neighbourhood Project, Canadian Social Analysts Limited, 1984.**

The project operated in a socially disadvantaged Kitchener-Waterloo neighbourhood whose residents were at risk for mental health problems. It was characterized by very high rates of single parent

families, low levels of education, high rates of residential mobility and high rates of unemployment.

A primary goal of the project was to develop an indigenous community-based structure to strengthen collective capabilities of the neighbourhood in problem-solving, decision-making, citizen participation and collective action. Lutherwood developed a program of community activities and services to enhance individual social competence, foster inter-personal relationships, develop structures for participation and leadership to act on behalf of residents.

A pre-test/post-test design was used. Demographic data, participant questionnaires and individual program data were used to measure social supports, psychological distress, self-esteem and personal control. The sample consists of 183 adolescents and adults.

The evaluation showed the program reduced rates of depression and distress by increasing levels of perceived social support. Both depression and general psychological distress were reduced at follow-up.

Serious methodological problems prohibited an evaluation of the impact of the project on the community. The focus, therefore, was its impact on individuals. The strength of the evaluation is in its assessment of the impact of the total program as being more than the sum of its parts. It makes a strong theoretical argument which is well-referenced. Its weaknesses are its small sample size, lack of appropriate comparison group and short time frame.

APPENDIX B

LIST OF MEMBERS

of the

TECHNICAL ADVISORY GROUP

Maru Barrera, M.A., Ph.D - Co-Chair, Pre-natal/Infant Subgroup

Associate Professor,
Department of Psychiatry,
McMaster University,
Hamilton, Ontario.

Director,
Infant-Parent-Child Program,
Chedoke-McMaster Hospitals,
Hamilton, Ontario

Dianne Bennett-Gates, M.Ed., Ph.D. - Preschool and Research Subgroups

Sciential Research and Computer Services Inc.,
Mississauga, Ontario

Peggy Birnberg - Community Involvement Subgroup

Executive Director
Opportunity for Advancement
Toronto, Ontario

Douglas Brown, Ph.D. - Preschool Subgroup

Executive Director
Child Assessment and Treatment Centre
Burlington, Ontario

B: TAG MEMBERS

Joy Davey, Ph.D., C. Psych. - Preschool Subgroup

Psychologist
Private Practice
London, Ontario

Director (until June, 1988)
University Laboratory Preschool,
University of Western,
London, Ontario

Joey Davidson, BSc.N., M.B.A. - Research Subgroup

Mental Health Nursing Supervisor
Nursing Division
Scarborough Health Department
Scarborough, Ontario

Margaret Deeth, B.A., A.T.C.M. - Primary School Subgroup

Coordinator
Early Childhood Education Department
Toronto Board of Education,
Toronto, Ontario

Barrie Evans, Ph.D., C. Psych. - Co-Chair, Pre-natal/Infant Subgroup

Treatment Director
Madame Vanier Children's Services
London, Ontario

Betty Flint, Professsor Emeritus - Infant Subgroup
Coordinator,
The Infant Centre,
Institute for Child Study,
Toronto, Ontario

Benjamin H. Gottlieb, M.S.W., Ph.D. - Community Involvement Subgroup

Professor
Department of Psychology
University of Guelph,
Guelph, Ontario

Andre Guitard, M.Ed. - Community Involvement Subgroup

Executive Director
Centre des Services Familiaux de Prescott-Russell
Hawkesbury, Ontario

Bryan Hayday, B.A., M.A. - Chair, Community Involvement Subgroup

Executive Director
Ontario Prevention Clearinghouse
Toronto, Ontario

Irene Kyle - Pre-natal/Infant Subgroup

Executive Director
Canadian Mothercraft Society
Toronto, Ontario

Betty Ann Manuel, B.Sc.N. - Pre-natal/Infant Subgroup

Supervisor of Maternal Infant Health
Reginal Municipality of Durham
Department of Health Services
Oshawa, Ontario

B: TAG MEMBERS

Sharon Marcovitch, Ph.D., C. Psych. - Chair, Preschool Subgroup

Co-Director
Developmental Evaluation Unit
Hospital for Sick Children
Toronto, Ontario

Dan Offord, M.D., FRCP (C), National Health Scientist - Chair, Research Subgroup

Professor of Psychiatry,
Division Head, Child Psychiatry
McMaster University
Hamilton, Ontario

Research Director
Chedoke Child and Family Centre
Chedoke-McMaster Hospitals
Hamilton, Ontario

Gabrielle O'Reilly, B.A., M.Ed. - Chair, Primary School Subgroup

Associate Professor
Faculty of Education
Ross Building, 8th Floor
York University
North York, Ontario

S. Mark Pancer, Ph.D., C. Psych. - Research Subgroup

Associate Professor
Department of Psychology
Wilfrid Laurier University
Waterloo, Ontario

Peter Penz, B.A., M.A., D.Phil. - Research Subgroup

Associate Professor
Faculty of Environmental Science
and Graduate Program in Social Work
York University
North York, Ontario

Ray DeV. Peters, Ph.D - Primary School Subgroup

Associate Professor
Department of Psychology
Queen's University
Kingston, Ontario

Research Consultant
Beechgrove Children's Centre
Kingston, Ontario

Frances Poleschuk, B.A., M.Ed. - Primary School Subgroup

Director, Canadian Association for Young Children
Vickers Heights, Ontario

Naomi Rae-Grant, M.B., B.S., FRCP(C) - Chair of Technical Advisory Group; Primary School Subgroup

Professor of Child Psychiatry and Pediatrics
Head, Division of Child Psychiatry
University of Western Ontario
London, Ontario

Ada Schermann - Primary School Subgroup

Special Lecturer and Educational Consultant
Faculty of Education
Toronto, Ontario

B: TAG MEMBERS

Malcolm Shookner, B.A., M.A. - Community Involvement Subgroup

Executive Coordinator
North York Inter-Agency and Community Council
North York, Ontario

Carole Sinclair, Ph.D. - Pre-natal/Infant Subgroup

Director
The Dellcrest Resource Centre
Downsview, Ontario

Clara Will, B.A., B.Ed. - Preschool Subgroup

Executive Director
Adventure Place
Willowdale, Ontario

APPENDIX C

SELECTED BIBLIOGRAPHY:

PRE-NATAL AND INFANCY

Affleck, A., Tennon, H., Allen, D. A., Gershman, K.; (1986), Perceived social support and maternal adaption during the transition from hospital to home care of high-risk infants, Infant Mental Health Journal, Vol. 7, No.1, Spring, pp. 6-15.

Ainsworth, Mary D.S., Blehar, M.C., Waters, E. and Wall, S.; (1978), Patterns of Attachment: A Psychological Study of the Strange Situation. Hillsdale, N.J.: Lawrence Erlbaum Associates.

Anastasiow, N. J.; (1987), Programs developed in response to teen pregnancies, Infant Mental Health Journal, Vol. 8, No.1, Spring, pp.65-74.

Badger, Earladeen; (1977), The infant stimulation/mother training project. In B.M. Caldwell and D.J. Stedman (Eds.) Infant Education: A Guide for Helping Handicapped Children in the First Three Years. New York: Walker and Co.

Baltman, K., Wetherston, D.J., Boger, R., and Richter, R.A.; (1983), Perinatal positive parenting: Parent support groups, Infant Mental Health Journal, Vol. 4, No. 4, Winter, pp. 316-319.

Barquest, K. and Kingston-Martin; (1986), Use of lay home visitors: A primary prevention strategy for families with a newborn, The Personnel and Guidance Journal, Vol, 62, No. 4, Spring-Summer, pp. 558-560.

Boger, R., Richter, R., Weatherston, D.; (1983), Perinatal positive parenting: A program of primary prevention through support of first-time parents, Infant Mental Health Journal, Vol, 4, No. 4, Winter, pp. 297-307.

C: INFANT BIBLIOGRAPHY

Booth, C., Barnard, K., Mitchell, S., Spieker, S.; (1987), Successful intervention with multi-problem mothers: Effects on the mother-infant relationship, Infant Mental Health Journal, Vol. 8, No. 3, Fall, pp. 288-305.

Bowlby, J.; (1969), Attachment and Loss, Vol. 1: Attachment, London: The Hogarth Press.

Bromberg, P.; (1980), Reaching high risk infants via their high risk fathers, Infant Mental Health Journal, Vol. 1, No. 3, Fall, pp. 161-167.

Bronfenbrenner, Urie; (1979), The Ecology of Human Development: Experiments by Nature and Design. Cambridge, Massachusetts: Harvard University Press.

Byles, J.A., Boyle, M.H., Offord, D.R. and Links, P.S.; (1985), Maternity homes post-natal support program, Community Programs for Young Mothers, Ministry of Community and Social Services, August.

Connell, David B. and Carew, Jean V.; (1980), Infant activities in low income homes: The impact of family focused intervention. In The Child Family Resource Program, presented at the International Conference on Infant Studies, New Haven, Connecticut, April.

Cowan, Carolyn and Cowan, Philip; (in press), A Preventive intervention for couples becoming parents. In C.F.Z. Boukydis, (Ed.) Research on Support for Parents and Infants in the Postnatal Period. New Jersey: Ablex Publishing Co.

Crittenden, Patricia M.; (1985), Social networks, quality of child rearing and child development, Child Development, Vol. 56, pp. 1299-1313.

Crittenden, Patricia M. and Snell, Martha E.; (1983), Intervention to improve mother-infant interaction and infant development, Infant Mental Health Journal, Vol. 4, No. 1, Spring, pp. 23-30.

Crittenden, Patricia M.; Patterns of Interaction Distinguishing Abusing, Neglecting, Problematic and Adequate Dyads. Author's address: University of Virginia, Psychology Department, Gilmer Hall, Charlottesville, Va. 22903.

Crnic, Keith A., Greenberg, Mark T., Slough, Nancy M.; (1986), Early stress and social support influences on mothers' and high-risk infants' functioning in late infancy, Infant Mental Health Journal, Vol. 7, No. 1, Spring,pp. 19- 31.

D'andrea, Michael; (1984), Primary prevention and high risk populations, The Personnel and Guidance Journal, May, pp. 554-557.

Dawson, Peter., van Doornick, William J.; (1981), Programs to support parents of young infants: Lessons from the parent-infant project. Presented at Increasing the Effectiveness of Parent-Infant Support Programs, Society for Research in Child Development, Boston, Mass., April 4.

Derevensky, Jeffrey L., Wasser-Kastner, Esta; (1984), The Effects of an interdisciplinary infant stimulation-parent education intervention program upon infant development, Infant Mental Health Journal, Vol. 5, No. 1, Spring, pp. 3-13.

Erikson, E.H.; (1950), Childhood and Society, New York: Norton.

Flint, Betty M.; (Unpublished), Parent-Infant Centre, Institute of Child Study, University of Toronto, May, 1986.

Flint, Betty; (1988), Evaluation of the Services of the Children's Storefront - Bathurst Street, Toronto, Program Services Branch, Department of Health and Welfare, Canada.

Gutelius, M. F., Kirsch, A. D., MacDonald, S., Brooks, M., McEriean, T.; (1977), Controlled study of child health supervision: Behavioral results, Pediatrics, Vol. 60, No. 3, September, pp. 294-304.

Halpern, R. and Larner, M.; (1987), Lay family support during pregnancy and infancy: The child survival/fair start initiative, Infant Mental Health Journal, Vol. 8, No. 2, Summer,pp. 130-142.

C: INFANT BIBLIOGRAPHY

Hasenfeld, Helen; (1981), The child parent drop-in centre: Community based primary prevention, Infant Mental Health Journal, Vol. 2, No. 3, Fall, pp. 155-158.

Helfer, R. E., and Wilson, A. L.; (1982), The parent-infant relationship: Promoting a positive beginning through perinatal coaching, Pediatric Clinics of North America, Vol. 29, No. 2, April.

Herzog, E. P., Cherniss, D. S. and Menzel, B. J.; (1986), Issues in engaging high-risk adolescent mothers in supportive work, Infant Mental Health Journal, Vol. 7, No. 1, Spring, pp. 59-67.

Heverly, M. A., Newman, F. L., and Forquer, S. L.; (1982), Meta Analysis and Cost Analysis of Preventive Intervention Programs Report, submitted to National Centre for Clinical Infant Programs, Philadelphia, Pa..

Higgins, A. C.; (1984 - 1985), Nutritional Status and the Outcome of Pregnancy, Annual Report of the Montreal Diet Dispensary.

Hislop, C.; (1982), An outreach approach to high risk parents and their infants, The Mental Health Journal, Vol. 3, No. 2, Summer, pp. 111-116.

Johnson, D. L., Walker, T.; (1987), Primary prevention of behavior problems in Mexican-American children, American Journal of Community Psychology, Vol. 15, No. 4, pp. 375-385.

Kenkel, M. B.; (1986), Stress-Coping-Support in rural communities: A model for primary prevention, American Journal of Community Psychology, Vol. 14, No. 5, pp. 457-475.

Kurnetz, R.; (1983), Hospital based parenting support for first-time parents: The Perinatal Positive Parenting Program at the William Beaumont Hospital, Infant Mental Health Journal, Vol. 4, No. 4, Winter, pp. 294-296.

Lally, R. J.; (1988), More pride, less delinquency: Findings from the ten year follow-up study of the Syracuse University Family Development Research Program, Zero to Three, April, pp. 13-18.

Landau, R.; (1980), A Program for increasing early identification and prevention of mental health problems in infancy, Infant Mental Health Journal, Vol. 1, No. 3, Fall, pp. 168-174.

Larson, C.; (1980), Efficacy of prenatal and postpartum visits on child health and development, Pediatrics, Vol. 66, No. 2, August, pp. 191-196.

Lewis, J.; (1988), Prevention programs in action, The Personnel and Guidance Journal, May, pp. 550-553.

Minuchin, Salvador, Montalvo, Braulio, et al., Families of the Slums: An Exploration of their Structure and Treatment, New York: Basic Books, 1967.

O'Connor, K.C., Davis, Susan, G. and Sahlein, Nancy, H.; (1984), Primary prevention with mothers and young children, Social Casework, Vol. 65(9), Nov., pp. 559-564.

O'Connor, Susan, Vietze, Peter, Sherrod, K., Sandler, H., and Altemeier, W.; (1980), Reduced incidence of parenting inadequacy following rooming-in, Pediatrics, Vol. 66, No. 2, August, pp. 176-182.

Olds, David, L.; (1987), Child maltreatment: Research and theory on the consequences of child abuse and neglect. In D. Cicchetti and V. Carlson (Ed.) Cambridge University Press.

Olds, David, L.; (1987), The prenatal/early infancy project. In E. Cowan (Ed.) Model Prevention Programs. Washington, D.C.: American Psychological Association.

Olds, David, L.; (1986), An intervention program for high-risk families. In R.A. Hoekelman, (Ed.) A Round Table on Minimizing High-Risk Parenting, Pennsylvania: Harwal Publishing.

Olds, David, L., Henderson, Charles, R., Tatelbaum, Robert and Chamberlin, Robert; (1986), Improving the delivery of prenatal care and outcomes of pregnancy: A randomized trial of nurse home visitation, Pediatrics, Vol. 77, No. 1, January.

C: INFANT BIBLIOGRAPHY

Olds, David, L.; (1980), Improving formal services for mothers and children. In J. Garabarino, and H. Stocking (Eds.) Protecting Children from Abuse and Neglect: Developing and Maintaining Effective Support Systems for Families, San Francisco: Jossey-Bass Publishers.

Peterson, Mary K.; (1982), Providing support for infants in severely disorganized families, Infant Mental Health Journal, Vol. 3, No. 2, Summer, pp. 117- 125.

Piaget, J.; (1952), The Origins of Intelligence in Children, New York: International Universities Press

Provence, Sally; (1985), On the efficacy of early intervention programs, Development and Behavioral Pediatrics, Vol. 6, pp. 363-366.

Quinton, D. and Rutter, M.; (1985), Family pathology and child psychiatric disorders: A four year prospective study. In A.R. Nichol, (Ed.) Longitudinal Studies in Child Psychology and Psychiatry.

Robins, Lee N. and Earls, Felton; (1982), A program for preventing anti-social behaviour for high-risk infants and pre-schoolers: A research prospectus. In R.L. Hough, P.A. Gongla, V.A. Brown, and S.E. Goldston, (Eds.) Psychiatric Epidemiology and Prevention: The Possibilities, Neuropsychiatric Institute, Univ. of California and National Institute of Mental Health.

Rolf, Jon E., Bevins, Susan, Hasazi, Joseph E., Crowther, Janis and Johnson, Jeannette; (1982), Prospective Research with Vulnerable Children and the Risky Art of Preventative Intervention. In H.A., Moss, R. Hess, and C. Swift (Eds.) Early Intervention Programs for Infants. New York: Haworth Press, pp. 107-121.

Roosa, Mark W.; (1982) Teenage Parenting and Child Development: A Literature Review, Infant Mental Health Journal, Vol. 3, No. 1, Spring, pp. 4-15.

Sameroff, A.J. and Chandler, M.J.; (1975), Reproductive risk and the continuum of caretaking casualty. In. F.D. Horowitz (Ed.) Review of Child Development Research, Chicago: University of Chicago Press, Vol 4., pp. 181 -241.

Scarr, Sandra and McCartney; (1988), Far from home: An experimental evaluation of the Mother-Child Home Program in Bermuda, Child Development, Vol. 59, pp. 531-543.

Seitz, Victoria; (1985), Effects of family support intervention: A ten year follow-up, Child Development, Vol. 56, pp. 376-391.

Sherrod, Kathryn B., O'Connor, Susan, Veitz, Peter M. and Altemeier, William A.; (1984), Child health and maltreatment, Child Development, Vol. 55, pp. 1174-1183.

Siegal, Earl, Bauman, K.E., Schaefer, E.S., Saunders, M.M. and Ingram, D.D.; (1980), Hospital and home support during infancy: Impact on maternal attachment, child abuse and neglect and health care utilization, Pediatrics, Vol. 66, No. 2, August, pp. 183-190.

Solyom, Antal E.; (1981), Mental health consultation in infant day care: A new frontier of prevention, Infant Mental Health Journal, Vol. 2, No. 3, Fall, pp. 188-196.

Werner, Emmy E.; (1988), Individual differences, universal needs: A thirty year study of resilient high risk infants, Zero to Three, April.

Wheeler-Liston, Carol L.; (1987), An Effective, Replicable Prevention Program for Infants Born at Risk with Pre-school Developmental Outcome Data From a Follow-up Sample. Presented at NCCIP'S Fifth Bienneal National Training Institute, December 4-6, Washington, D.C.

Wieder, Serena, Jasnow, M., Greenspan, S.I. and Strauss, M.; (1983), Identifying the multi-risk family prenatally: Antecedent psycholocial factors and infant developmental trends, Infant Mental Health Journal, Vol. 4, No. 3, Fall, pp. 165-200.

APPENDIX D

SELECTED BIBLIOGRAPHY:

PRESCHOOL-AGE CHILDREN

Berrueta-Clement, J., Schweinhart, L.J., Barnett, W.S., Epstein, A.S. and Weikart, D.P.; (1984), Changed Lives: The Effects of the Perry Preschool Program on Youths Through Age 19. Michigan: High/Scope Press.

Bryant, Donna, Ramey, Craig; (1987), An analysis of the effectiveness of early intervention programs for environmentally at-risk children. In M. J. Guralnick and F.C. Bennett (Eds.) The Effectiveness of Early Intervention for At-Risk and Handicapped Children. Toronto: Harcourt Brace Jovanovich, pp. 33-78.

Casto, G. and Lewis, A.; (1984), Parent involvement in infant and preschool programs, Journal of the Division of Early Childhood, Vol. 9, pp. 49-56.

Consortium for Longitudinal Studies, As the Twig is Bent..., 1983, New Jersey: Lawrence Erlbaum Associates.

Deutsch, M., Deutsch, C., Jordan, T. and Grallo, R.; (1983), The IDS program: An experiment in early and sustained enrichment. In Consortium for Longitudinal Studies, As the Twig is Bent..., New Jersey: Lawrence Erlbaum Associates, pp. 377-410.

Farnworth, Margaret, Schweinhart, L. and Berrueta-Clement, J.; (1985), Preschool intervention, school success and delinquency in a high-risk sample, American Educational Research Journal, Vol. 22(3), pp. 445-64.

Fuller, C., Vandiviere, P. and Kronberg, C.; (1987), Talkline: An evaluation of a call-in telephone service for parents, Journal of the Division of Early Childhood, Vol. 11(3), pp. 265-270.

Gersten, Russell; (1986), Response to "Consequences of three preschool curriculum models through age 15", Early Childhood Research Quarterly, Vol 1(3), pp. 293-301.

Gray, S., Ramsy, B. and Klaus, R.; (1983), The early training project 1962-1980. In Consortium for Longitudinal Studies, As the Twig is Bent..., New Jersey: Lawrence Erlbaum Associates, pp. 33-70.

Guralnick, Michael and Bennett, Forrest; (1987), Early intervention for at-risk and handicapped children: Current and future perspectives. In M. Guralnick and F. Bennett (Eds.) The Effectiveness of Early Intervention for At-Risk and Handicapped Children. Toronto: Harcourt, Brace, Jovanovich, pp. 365-382.

Head Start Performance Standards, Administration for Children for Children, Youth and Families, Department of Health and Human Services, 1975.

Jester, R., and Guinagh, Barry, J.; (1983), The Gordon parent education infant and toddler program. In Consortium for Longitudinal Studies, As the Twig is Bent..., New Jersey: Lawrence Erlbaum Associates, pp. 103-132.

Johnson, D.L. and Walker, T.; (1987), Primary prevention of behavior problems in Mexican-American children, American Journal of Community Psychology, Vol. 15(4), pp. 375-385.

Kale, Phillip, S. and Cole, Kevin, N.; (1988), Comparison of academic and cognitive programs for young handicapped children, Exceptional Children, Vol. 54(5), pp. 439-447.

Karnes, M.B., Schwedel, A.M. and Williams, M.B.; (1983), A comparison of 5 approaches for educating young children from low-income homes. In Consortium for Longitudinal Studies, As the Twig is Bent..., New Jersey: Lawrence Erlbaum Associates, pp. 133-169.

Kuno, Beller, E.; (1983), The Philadelphia study: The impact of preschool on intellectual and socioemotional development. In Consortium for Longitudinal Studies, As the Twig is Bent..., New Jersey: Lawrence Erlbaum Associates, pp. 333-376.

Lazar, Irving; (1983), Discussion and Implications of the findings. In Consortium for Longitudinal Studies, As the Twig is Bent..., New Jersey: Lawrence Erlbaum Associates, pp. 461-467.

Lazar, I. and Darlington, R. (1982) Lasting effects of early education: A Report from the Consortium for Longitudinal Studies, Monographs of the Society for Research in Child Development, #195, Vol. 47(2-3).

Levenstein, Phyllis, O'Hara, John and Madden, John; (1983), The Mother-Child Home Program of the Verbal Interaction project. In Consortium for Longitudinal Studies, As the Twig is Bent..., New Jersey: Lawrence Erlbaum Associates, pp. 237-264.

McKey, Condelli, Ganson, Barrett, McConkey and Plantz, The Impact of Head Start on Children, Families and Communities. (Final Report of the Head Start Evaluation, Synthesis and Utilization Project), Washington, D.C., CSR, June, 1985.

Miller and Dyer, Four Preschool Programs: Their Dimensions and Effects., Monographs of the Society for Research in Child Development, Vol. 40, Nos. 5 - 6, 1975.

Miller, Louise, B. and Bizzell, Rondeall; (1983), The Louisville Experiment: A comparison of four programs. In Consortium for Longitudinal Studies, As the Twig is Bent..., New Jersey: Lawrence Erlbaum Associates, pp. 171-200.

Palmer, Francis, H.; (1983), The Harlem Study: Effects by type of training, age of training, and social class. In Consortium for Longitudinal Studies, As the Twig is Bent..., New Jersey: Lawrence Erlbaum Associates, pp.201-236.

Pierson, D.E., Tivran, T., and Walker, D.K.; (1984), A school-based program from infancy to kindergarten for children and their parents, The Personnel and Guidance Journal, Vol. 62(8), pp. 445-455.

Ramey, C.T. and Campbell, F.A.; (1984), Preventive education for high-risk children: Cognitive consequences of the Carolina Abecedarian Project, American Journal of Mental Deficiency, Vol. 88, pp. 515-523.

Resnick, Gary; (1985), Enhancing parental competencies for high risk mothers: An evaluation of prevention effects, Child Abuse and Neglect, Vol. 9(4), pp. 479-489.

Schorr, Lisbeth, B.; (1988), Within our reach: Breaking the Cycle of Disadvantage. New York: Anchor Press, pp. 256-290.

Schweinhart, Lawrence, J.; (1986), Consequences of three preschool curriculum models through age 15, Early Childhood Research Quarterly, Vol. 1(1), pp. 15-45.

Schweinhart, Lawrence, J.; (1985), Effects of the Perry Preschool Program on youths through age 19: A summary. Topics in Early Childhood Special Education Quarterly, Vol. 5(2), pp. 26-35.

Vopave, Judy and Royce, Jacqueline; (1987), Comparison of the Long-term Effects of Infant and Preschool Programs on Academic Performance. Paper presented at the meeting of the American Educational Research Association, March 27.

Woodhead, Martin; (1988), When psychology informs public policy: The case of early childhood intervention, American Psychologist, Vol. 43(6), pp. 443-454.

Woolman, Myron; (1983), The Micro-Social Learning Environment: A strategy for Accelerating Learning. In Consortium for Longitudinal Studies, As the Twig is Bent..., New Jersey: Lawrence Erlbaum Associates, pp. 265-298.

Wright, Mary, J.; (1983), Compensatory Education in the Preschool: A Canadian Approach. Ypsilanti, Michigan: High/Scope press.

Zigler, Edward, F.; (1987), Formal schooling for four-year-olds? North American Psychologist, Vol. 42(3), pp. 254-260.

Zigler, Edward F. and Valentine, J., (Eds.); (1979), Project Head Start: A Legacy of the War on Poverty. New York: Free Press, 1979.

APPENDIX E

SELECTED BIBLIOGRAPHY:

PRIMARY SCHOOL-AGED CHILDREN

Baker, S.B., Swisher, J.D., Nadenichek, P.E., and Popowicz, C.L.; (1984), Measured effects of primary prevention strategies, The Personnel and Guidance Journal, Vol. 62(8), pp. 459-463.

Barclay, J.R.; (1984), Primary prevention and assessment, The Personnel and Guidance Journal, Vol. 62(8), pp. 475-478.

Bower, E.M.; (1987), Prevention: A word whose time has come, American Journal of Orthospychiatry, Vol. 57, pp. 4-5.

Bronstein, P.; (1984), Promoting health emotional development in children, Journal of Primary Prevention, Vol. 5, pp. 92-110.

Cauce, A.M., Comer, J.P., and Schwartz, D.; (1987), Long term effects of a systems-oriented school prevention program, American Journal of Orthopsychiatry, Vol. 57, pp. 127-131.

Comer, J.P. (1976). Improving the quality and continuity of relationships in two inner-city schools. Journal of the American Academy of Child Psychiatry, 15, pp. 535-545.

Comer, J.P., (1980). School Power: Implications of an intervention project. New York: Free Press.

Comer, J.P.; (1985), The Yale-New Haven primary prevention project: A follow-up study, Journal of American Academy of Child Psychiatry, Vol. 24, pp. 154-160.

Cowen, E.L. (Ed.); (1982), SPECIAL ISSUE: Research in primary prevention in mental health, American Journal of Community Psychology, Vol. 10 (3).

E: PRIMARY SCHOOL BIBLIOGRAPHY

Cowen, E.L. and Hightower, A.D.; (1987), The primary mental health project: Alternative approaches in school-based preventive intervention. In T.B. Gutkin, and C.R. Reynolds (Eds.), The Handbook of School Psychology, 2nd. ed. New York: John Wiley.

Durlak, J. A. (1983). Social problem-solving as a primary prevention strategy. In R.D.. Felner, L.A. Jason, J.N. Moritsugu, and S.S. Farber (eds)., Preventive psychology: theory, research and practice. New York: Pergamon Press, pp. 31-48.

Durlak, J. A. (1983). Primary prevention of school maladjustment. Journal of Consulting and Clinical Psychology, 53(5), pp. 623- 630.

Elias, M.J.; (1987) Establishing enduring prevention programs: Advancing the legacy of Swampscott, American Journal of Community Psychology, Vol. 15, pp. 539-553.

Elias, M., Gara, M., Ubriaco, M., Rothbaum, P., Clabby, and Schuyler, T.; (1986), Impact of a preventive social problem solving intervention on children's coping with middle-school stressors, American Journal of Community Psychology, Vol. 14, pp. 259-270.

Feshbach, N.D., and Cohen, S.; (1988), Training affect comprehension in young children: An experimental evaluation, Journal of Applied Developmental Psychology, Vol. 9, pp. 201-210.

Jones, M.B., Offord, D.R.; (1983), Skill development: A community intervention program for the prevention of antisocial behavior. In S.B. Guze, F.J. Earls, and J.E. Barrett (eds.)., Childhood Psychopathology and Development. New York: Raven Press, pp. 165-188

Jones, M.B., Offord, D.R.; (in press), Reduction of anti-social behaviour in poor children by nonschool skill development, Journal of Child Psychology and Psychiatry.

Joran, T.J., Grallo, R., Deutsch, M., and Deutsch, C.P.; (1985), Long-term effects of early enrichment: A 20-year perspective on persistence and change, American Journal of Community Psychology, Vol. 13, pp. 393.

Lorion, R.P., Work, W.C., and Hightower, A.D.; (1984), A school-based multi-level preventive intervention: Issues in program development and evaluation, The Personnel and Guidance Journal, Vol. 62(8), pp. 479-484.

Lotyczewski, B.S., Cowen, E.L., Weissberg, R.; (1986), Relationships between health problems and school adjustment of young children, Journal of Special Education, Vol. 20, pp. 241-250.

Morgan, C.; (1984), A curricular approach to primary prevention, The Personnel and Guidance Journal, Vol. 62(8), pp. 467-469.

Moskowitz, J.M., Schaps, E., and Malvin, J.H.; (1982), Process and outcome evaluation in primary prevention: The magic circle program, Evaluation Review, Vol. 6, pp. 775-788.

Offord, D. R. (1985). Prevention of behavioral and emotional disorders in children. Journal of Child Psychology and Psychiatry, 28(1), pp. 9-19.

Ontario Goals for Primary Grades (1984). Program expectations for primary children. In Report of the early primary education project. Toronto: Ontario Ministry of Education.

Parker, F.L., Piotrkowski, C.S., and Peay, L.; (1987), Head Start as a social support for mothers: The psychological benefits of involvement, American Journal of Orthopsychiatry, Vol. 57, pp. 220-233.

Pedro-Carroll, J.L. and Cowen, E.L. (1985). The children of divorce intervention program: An investigation of the efficacy of a school-based prevention program. Journal of Consulting and Clinical Psychology, Vol. 53, pp. 603-611.

Pedro-Carroll, J.L., Cowen, E.L., Hightower, A.D., and Guare, J.C.; (1986), Preventive intervention with latency-aged children of divorce: A replication study, American Journal of Community Psychology, Vol. 14, pp. 277-290.

E: PRIMARY SCHOOL BIBLIOGRAPHY

Peterson, L. (Ed.); (1985), Special Series: Primary prevention of childhood disorders, Journal of Consulting and Clinical Psychology, Vol. 53(5).

Pierson, D.E., Walker, D.K., and Tivnan, T.; (1984), A school-based program from infancy to kindergarten for children and their parents, The Personnel and Guidance Journal, Vol. 62(8), pp. 448-454.

Report of the Early Primary Education Project, (1985). Toronto: Ontario Ministry of Education.

Report of the National Mental Health Association Commission on the Prevention of Mental-Emotional Disabilities. (1986) Alexandria, Virginia: National Mental Health Association.

Rotheram, M.J.; (In Press), Assertiveness training with children. In Price, R., Cowen, E., Lorion R., and Ramos-McKay, J.; (1988), Primary Prevention: Exemplary Model Programs. Washington, D.C.: American Psychological Association.

Rotheram, M.J.; (1987), Children's social and academic competence, Journal of Educational Research, Vol. 80, pp. 206-211.

Rotheram, M.J.; (1982), Social skills training with underachievers, disruptive and exceptional children.

Rotheram, M.J.; (1982), Variations in children's assertiveness due to trainer assertion level, Journal of Community Psychology, Vol. 10, pp. 228- 236.

Rotheram, M.J.; (1980), Social skills training programs in elementary and high school classrooms. In D. Rathjen and J. Foreyt, Social Competence: Intervention for Children and Adults. New York: Pergamon Press, N.Y.

Rotheram, M.J., Armstrong, M., and Booraem, C.; (1982), Assertiveness training in fourth and fifth-grade children, American Journal of Community Psychology, Vol. 10, pp. 567-582.

Seitz, V., Apfel, N. Rosenbaum, L, and Zigler, E.; (1983), Long-term effects of projects Head Start and Follow Through: The New Haven project. In Consortium for Longitudinal Studies, Lasting effects of preschool programs. New Jersey: Lawrence Erlbaum Assoc.7.

Shaw, M.C., Goodyear, R.K.; (1984), Prologue to primary prevention in schools, The Personnel and Guidance Journal, Vol. 62(8), pp. 446-447.

Shure, M. and Spivack, G.; (1982), Interpersonal problem-solving in young children: A cognitive approach to prevention, American Journal of Community Psychology, Vol. 10, pp. 341-357.

Sprinthall, N.A.; (1984), Primary prevention: A road paved with a plethora of promises and procrastinations, The Personnel and Guidance Journal, Vol. 62(8), pp. 491-495.

Stillwell, W.E., DeMers, S.T., and Niquette, G.F. (1985). In S. I. Pfeiffer (ed), Clinical child psychology - An introduction to theory, research and practice. Orlando: Grune and Stratton, 1985.

Woodhead, Martin; (1988), When psychology informs public policy: The case of early childhood intervention, American Psychologist, Vol. 43(6), pp. 443-454.

APPENDIX F

SELECTED BIBLIOGRAPHY:

COMMUNITY INVOLVEMENT

Anthony, E.J.; (1974), A risk-vulnerability intervention model for children of psychotic parents. In E.J. Anthony and C. Koupernik (Eds.) The Child in His Family, Vol. III of Child of Psychiatric Risk. Toronto: John Wiley and Sons.

Barquest, K. and Martin, H.; (1984), Use of lay home visitors: A primary prevention strategy for families with a newborn, The Personnel and Guidance Journal, Vol. 62, No. 9, pp. 558-560.

Bloom, B.; (1988), Topical Review: Primary prevention and the partnership of clinical, community and health psychology, Journal of Primary Prevention, Spring 8(3), pp. 149-163.

Bronfenbrenner, Urie; (1979), The Ecology of Human Development. Cambridge, Massachusetts: Harvard University Press.

Canadian Public Health Association; (1987), Strengthening Community Health Means Strengthening Communities, Draft Report, Ottawa.

Cohen, A.M.; (Unpublished), The Highland Sterling Neighborhood Project, 1982.

Cohen, E.; (1985), Person-centred approaches to primary prevention in mental health: Situation focused and competence-enhancement, American Journal of Community Psychology, Vol. 13, No. 1, pp. 31-48.

Cohen, S., and T.A. Wills; (1985), Stress, Social Support, and the Buffering Hypothesis, Psychological Bulletin, Vol. 98, No. 2, pp. 310-357.

Craven, P.; (Unpublished), Westview Community Venture - Assessment Report, July, 1981.

F: COMMUNITY BIBLIOGRAPHY

Davis, D.; (1982), Participating in community intervention design, American Journal of Community Psychology, Vol. 10, No. 4, pp. 429-446.

Fried, R.; (1980), Empowerment versus Delivery of Services, New Hampshire State Department of Education, Office of Community Education.

Gatz, Barbarin, Tyler, Mitchell, Moran, Wirzbicki, Crawford and Englishman; (1982), Enhancement of individual and community competence: The older adult as community workers, American Journal of Community Psychology, Vol. 10, No. 3, pp. 291-303.

Gottlieb, B.; (1988), Marshalling Social Support: Formats, Processes and Effects. Newbury Park, CA.: Sage Publications Inc.

Gottlieb, B.; (1987), Using social support to protect and promote health, Journal of Primary Prevention, Vol. 8(1 and 2), Fall/Winter, pp. 49-70.

Gottlieb, B., (Ed.); (1983), Social Support Strategies: Guidelines for Mental Health Practice. In Sage Studies in Community Mental Health, Vol. 7, Newbury Park, CA.: Sage Publications Inc.

Harris, I.; (1987), What can we do to prevent the cycle of poverty?, Clifford Beers Lecture delivered at the Child Study Centre, Yale University, March 24, 1987.

Health and Welfare Canada; (1986), Achieving Health for All: A Framework for Health Promotion.

Hodgson, S.; (1984), Efficient and effective human services: Some assumptions about why and how to involve community residents, Canadian Journal of Community Mental Health, Vol. 3, No. 1, Spring, pp. 27-38.

Hodgson. S.; (Unpublished), Toward Supportive Communities: An Evaluation of the Child/Parent Centre of the Jane-Finch Community and Family Centre, 1984.

Iscoe, I.; (1974), Community psychology and the competent community, American Psychologist, August, pp. 607-613.

Labonte, R.; (1986), Social inequality and healthy public policy, Health Promotion, Vol. 1, No. 3, pp. 341-351.

Labonte, R.; (1987), Community health promotion strategies, Health Promotion, Summer, pp. 5-10.

Labonte, R. and Shannon, W.; (1986), The unequal society: Descriptive evaluation of a community education project, International Quarterly of Community Health Education, Vol. 7(1), pp. 41-49.

Masterpasqua, F. and Swift, M.; (1984), Prevention of problems in childhood on a community wide basis. In M. Roberts and L. Peterson L. (Eds.) Prevention of Problems in Childhood, Toronto: John Wiley and Sons, Inc.

McKnight, John, L.; (1977), Professionalized Service and Disabling Help. In Ideas in Progress Series, Disabling Persons. Guildford and King's Lynn: Biddles Ltd.

McKnight, John, L.; (1985), Health and empowerment, Canadian Journal of Public Health, Supplement one to Vol. 6, May/June, pp. 37-38.

Offord, D.R. and Jones, M.B.; (1983), Skill development: A community intervention program for the prevention of antisocial behavior. In S.B. Guse, J.E. Earls and J.E. Barrett (Eds.) Childhood Psychopathology and Development, New York: Raven Press.

Ontario Ministry of Community and Social Services; (1979), The State of the Art: A background paper on prevention.

Ontario Ministry of Community and Social Services; (1984), Report on Primary Prevention Initiatives in Children's Services.

Ontario Ministry of Community and Social Services; (1985), Planning and Management Considerations for Prevention in Children's Services, Policy Development.

F: COMMUNITY BIBLIOGRAPHY

Ontario Ministry of Community and Social Services; (1986), Ontario Child Health Study.

Ontario Ministry of Community and Social Services; (1983), Transitions -Summary, Report of the Social Assistance Review Committee.

Ontario Prevention Clearinghouse; (1988), Community development at work, The Ontario Prevention Clearinghouse Newsletter, Vol.2, No. 2, July, pp. 2.

Pancer, Mark; (Unpublished), The Cambridge Prevention Project: An Evaluation, May, 1988.

Panel on Health Goals for Ontario; (1987), Health for all Ontario.

Perry, Kelpp & Schultz; (1988), Primary prevention of cardiovascular disease: Community wide strategies for youth, Journal of Consulting and Clinical Psychology, Vol. 56, No. 3, pp. 358-364.

Pilsuk, Parks, Kelly and Turner; (1982), The helping network approach: Community promotion of mental health, Journal of Primary Prevention, 3(2), Winter, pp. 116-132.

Puska, Salonen and Nissinen; (1983), Change in risk factors for coronary heart disease during 10 years of a community programme (North Karelia Project), British Medical Journal, Vol. 286, pp. 1857-1860.

Rae-Grant, Boyle, Offord and Thomas; (1984), The Buffering Effect of Protective Factors in Reducing the Incidence of Common Behavioral and Emotional Disorders in Childhood. Paper presented at the Joint Meeting of the American and Canadian Academies of Child Psychiatry.

Report of the Minister's Advisory Group on Health Promotion; (1987), Health Promotion Matters in Ontario.

Research and Policy Committee of the Committee for Economic Development, (1987), Children in Need: Investment Strategies for Educationally Disadvantaged. Committee for Economic Development.

Rosenwald, P.; (1985), Operating a primary prevention program,Children Today, July-August, pp. 7-10.

Rothman, Jack; (1974), Planning and Organizing for Social Change: Action Principles from Social Service Research, New York: Columbia University Press.

Runquist, M. and Behar, L.; (1974), Prevention of Mental Health Problems: Meeting Needs or Imposing Values? Paper on file at the Community and Social Services Library.

Rutter, M.; (1977), Invulnerability or why some children are not damaged by stress. Paper presented at International Symposium New Directions in Children's Mental Health, held at Thisletown Regional Centre, Toronto.

Sarason, S.B.; (1988), The Psychological Sense of Community: Prospects for a Community Psychology, Mass.: Brookline Books.

Sarason, S.B., Carroll, C., Maton, K.; (1988), Human Services and Resource Networks: Rationale, Possibilities, and Public Policy, Mass.: Brookline Books.

Schuh, M.; (Unpublished), Evaluation of the Timmons Family Life Centre and Toy Lending Library, 1987.

Stolberg and Garrison; (1985), Evaluating a primary prevention program for children of divorce, American Journal of Community Psychology, Vol. 13, No. 2, pp. 111-124.

Unger, D.G., and A. Wandersman; (1985), The importance of neighbours: the social, cognitive and affective components of neighboring. American Journal of Community Psychology, Vol. 13(2), April, pp. 139-169.

Wandersman, A., and Giamartino, G.A.; (1980), Community and individual difference characteristics as influences on initial participation. American Journal of Community Psychology, Vol. 8(2), April, pp. 217-228.

Warren; (1965), Some important aspects of the community. In Studying your Community. New York Free Press, pp. 353-361.

Weiss, H.; (1983), Strengthening families and rebuilding the social infrastructure: A review of family support and educational programs, A State of the Art paper for the Charles Stewart Mott Foundation.

Whitmore, E., and Patrick Kerans, "Participation, Empowerment and Welfare," Canadian Review of Social Policy, No. 22, November, 1988, pp. 51-60.

World Health Organization, Health and Welfare Canada and Canadian Public Health Association; (1986), Ottawa Charter for Health Promotion. Developed at the International Conference on Health Promotion, November 17-21, Ottawa, Ontario.

APPENDIX G

SELECTED BIBLIOGRAPHY:

RESEARCH ISSUES

Achenbach, T.M.; (1978), The child behaviour profile: Boys aged 6-11, Journal of Consulting and Clinical Psychology, Vol. 46, pp. 478-488.

Albee, G.W.; (1986), Toward a just society: Lessons from observations of the primary prevention of psychopathology, American Psychologist, Vol. 41, pg. 891-898.

Alvin, B., Wylan, L., and McCourt, W.; (1971), Primary prevention: whose responsibility? American Journal of Orthopsychiatry, Vol. 128(4), pp. 412-417.

Anthony, E.J.; (1982), The preventive approach to children at high risk for psychopathology and psychosis, Journal of Children in Contemporary Society, Vol. 15(1), pp. 67-72.

Barclay, J.R.; (1984), Primary prevention and assessment, The Personnel and Guidance Journal, Vol. 62(8), pp. 475-478.

Beck, A.T., Ward, C.H., Mendelson, M., Mack, J. and Erbaugh, J.; (1961), An inventory for measuring depression, Archives of General Psychiatry, Vol. 4 pp. 561-571.

Bonjean, C.M., Hill, R.J., and McLemore, S.D.; (1967), Sociological Measurement: An Inventory of Scales and Indices. San Francisco, California: Chandler.

Boyle, M.H. and Jones, S.C.; (1985), Selecting measures of emotional and behavioural disorders of childhood for use in general populations, Journal of Child Psychology and Psychiatry, Vol. 26(1), pp. 137-159.

Bry, B.H. and George, F.E.; (1979), Evaluating and improving prevention programs: A strategy from drug abuse, Evaluation and Program Planning, Vol. 2, pp. 127-136.

G: RESEARCH BIBLIOGRAPHY

Buros, O.K.; (1972), Mental Measurements Yearbook. Highland Park, New Jersey: Gryphon Press.

Buros, O.; (1965), Mental Measurements Yearbook, 6th ed. Highland Park, New Jersey: Gryphon Press.

Buros, O.; (1970), Personality Tests and Reviews. Highland Park, New Jersey: Gryphon Press.

Campbell, D.T. and Stanley, J.C.; (1966), Experimental and Quasi-Experimental Designs for Research. Chicago: Rand McNally.

Canada; (1978), Treasury Board Secretariat Benefit-Cost Analysis Guide. Ottawa: Supply and Services, Government of Canada.

Caplan, G.; (1980), An approach to preventive intervention in child psychiatry, Journal of Psychiatry, Vol. 25(8), pp. 671-682.

Carter, D.E. and Newman, F.L.; (1976), A Client-Oriented System of Mental Health Delivery and Program Management. Rockville, Maryland: National Institute of Mental Health.

Ciarlo, J.A.; (1981), The Assessment of Client-Patient Outcome Techniques for Use in Mental Health Programs. Denver, Colorado: National Institute of Mental Health, University of Denver.

Clifford, D.; (1981), Instruments for measuring outcomes in mental health program evaluation: Results of a survey, Evaluation News, 2(1), pp. 54-58.

Cohn, A.H. and Daro, D.; (1987), Is treatment too late: what ten years of evaluative research tell us, Child Abuse and Neglect, Vol. 11(3), pp. 433-442.

Cook, T.D., and Campbell, D.T.; (1979), Quasi-Experimentation: Design and Analysis for Field Settings. Chicago: Rand McNally.

Cook, T.D. and Reichardt, C.S.; (1976), Statistical analysis of non-equivalent control grop designs: A guide to some current literature, Evaluation, 3, pp. 136-138.

Coopersmith, S.; (1967), The Antecedents of Self-Esteem. San Francisco: Freeman.

Cowell, E.L.; (1985), Person-centred approaches to primary prevention in mental health: Situation focused and competence enhancement, American Journal of Community Psychology, Vol. 13, pp. 31-48.

Cronbach, L. J. et al.; (1981), Toward Reform of Program Evaluation. San Francisco: Jossey-Bass Publishers.

Culyer, A.J.; (1978), Measuring Health: Lessons for Ontario. Toronto: University of Toronto Press.

Culyer, A.J.; (1980), The Political Economy of Social Policy. Oxford: Robertson.

Cytrynbaum, S., Ginath, Y., Birdwell, J. and Brandt, L.; (1979), Goal attainment scaling: A critical review, Evaluation Quarterly, Vol. 3, pp. 5-40.

Duncan, W.J.; (1981) Quasi-experimental research in organizations: A critique and proposed typology, Human Relations, Vol. 34, pp. 989-1000.

Ellsworth, R.B.; (1979), Review of recommended outcome evaluation measures. In B. Markham, and R. Turner, (Eds.), Survival Kit for Program Evaluatiors. Piscataway, New Jersey: Rutgers University (New Jersey Program Evaluation Action Committee), pp. 192-206.

Endicott, J., Spitzer, R.L., Fleiss, J.L. and Cohen, J.; (1976), The global assessment scale: A procedure for measuring overall severity of psychiatric disturbance, Archives of General Psychiatry, Vol. 33, pp. 766-771.

Flanagan, J.C.; (1971), Evaluation and validation of research data in primary prevention, American Journal of Orthopsychiatry, Vol. 41(1), pp. 117-123.

Forquer, S.L.; (1982), Planning primary prevention programs, Children in Contemporary Society, Vol. 14(2-3), pp. 69-78.

Garbarino, J.; (1986), Can we measure success in preventing child abuse? Issues in policy, programming, and research, Child Abuse and Neglect, Vol. 10(2), pp. 143-156.

Garmezy, N.; (1971), Vulnerability research and the issue of primary prevention, American Journal of Orthopsychiatry, Vol. 41(1), pp. 101-116.

George, L.K. and Bearon, L.B.; (1980), Quality of Life in Older Persons: Meaning and Measurement. New York: Human Science Press.

Geston, E.L. and Jason, L.A.; (1987), Social and community interventions, Annual Review of Psychology, Vol. 38, pp. 427-460.

Goldbloom, R. and Battista, R.N.; (1986), The periodic health examination: 1. Introduction, Canadian Medical Association Journal, Vol. 134, pp. 721-729.

Gottman, J.M. and Glass, G.V.; (1978), Analysis of interrupted time-series experiments. In T.R. Kratochwill (Ed.), Single Subject Research: Strategies for Evaluating Change. New York: Academic Press.

Guba, E. G., and Lincoln, Y. S.; (1981), Effective Evaluation-Improving the Usefulness of Evaluation Results Through Responsive and Naturalistic Approaches. San Francisco: Jossey-Bass.

Hackler, J.C.; (1978), The dangers of political naivete and excessive complexity in evaluating delinquency prevention programs, Evaluation and Program Planning, Vol. 1, pp. 273-283.

Heller, K., Price, R.H., Sher, K.J.; (1980), Research and evaluation in primary prevention: Issues and guidelines. In R.H. Price, R.F. Ketterer, B.C. Bader, and J. Monana (Eds.), Prevention in Mental Health, Research, Policy and Practice (Volume 1). California: Sage.

Ihlevich, D., Gleser, G.C., Gritter, G.W., Kroman, L.J. and Watson, A.S.; (1981), Measuring program outcome: The progress evaluation scales, Evaluation Review, Vol. 5, pp. 451-477.

Jason, L.A., Thompson, D., and Rose, T.; (1986), Methodological issues in prevention. In B.A. Edelstein and L. Michelson (Eds.), Handbook of Prevention. New York: Plenum Press.

Jastak, J. and Jastak, S.; (1979), Wide Range Achievement Test. Wilmington, Delaware: Jastak Associates.

Judd, C.M. and Kenny, D.A.; (1985), The Design and Analysis of Social Research in Applied Settings. Cambridge: Cambridge University Press.

Kane, R.L., Wooley, F.R., Gardener, H.J., et al.; (1976), Measuring outcomes of care in an ambulatory primary care population: A pilot study, Journal of Community Health, Vol. 1, pp. 233.

Kazdin, A.E.; (1978), Methodological and interpretive problems of single-case experimental designs, Journal of Consulting and Clinical Psychology, Vol. 46, pp. 629-642.

Kettner, P.M. and Daley, J.M.; (1988), Designing effective programs, Child Welfare, Vol. 67(2), pp. 99-111.

Kidder, L.H.; (1981), Research Methods in Social Relations, 4th Edition. New York: Holt, Rinehart and Winston.

Kiresuk, T.J. and Lund, S.H.; (1978), Goal attainment scaling. In C. C. Atkisson, W. A. Hargreaves, M.J. Horowitz, and J. E. Sorenson, (Eds.), Evaluation of Human Service Programs (Chapter 12). New York: Academic Press.

Larsen, D.L., Atkisson, C.C., Hargreaves, W.A. and Nguyen, T.D.; (1979), Assessment of client/patient satisfaction: Development of a general scale, Evaluation and Program Planning, Vol. 2, pp. 197-207.

Lave, J.R. and Lave, L.B.; (1977), Measuring the effectiveness of prevention: 1. Health and Society, pp. 273-289.

Mahoney, M.J.; (1978), Experimental methods and outcome evaluation, Journal of Consulting and Clinical Psychology, Vol. 46, pp. 660-672.

Majchrzak, A.; (1984), Methods for Policy Research, Beverly Hills: Sage.

Mazur-Hart, S.F. and Berman, J.J.; (1977), Changing from fault to no-fault divorce: An interrupted time series analysis, Journal of Applied Psychology, Vol. 7. pp. 300-312.

McAllister, D. M.; (1980), Evaluation in Environmental Planning: Assessing Environmental, Social, Economic and Political Trade-offs. Cambridge, Massachusetts: MIT Press.

Mednick, B.R., Mednick, S.A., Griffith, J.J.; (1981), Introduction: Longitudinal research and intervention: Problems with traditional strategies in mental health research. In F. Schulsinger, S. A. Mednick and J. Knop, (Eds.) Longitudinal Research: Methods and Uses in Behavioural Sciences, Boston: Martinus Nijhoff.

Mednick, B.R., Mednick, S.A. and Griffith, J.J.; (1981), Some recommendations for the design and conduct of longitudinal investigations. In F. Schulsinger, S.A. Mednick, and J. Knop (Eds.), Longitudinal Research: Methods and Uses in Behavioural Sciences, Boston: Martinus Nijhoff.

Meyers, W.R.; (1981), The Evaluation Enterprise. San Francisco: Jossey-Bass.

Miller, D.C.; (1964), Handbook of Research Design and Social Measurement. New York: McKay.

Mishan, E.J.; (1975), Cost-Benefit Analysis. London: Allen and Unwin.

Moos, R.H.; (1974), The Social Climate Scales: An Overview. Palo Alto, California: Consulting Psychologists Press.

Najman, J.M. et al.; (1983), Politics, policy, and performance: The primary prevention of disease in two community health centres in

Queensland, Australian and New Zeland Journal of Sociology, Vol. 19(3), pp.476-490.

Nuehring, E.M., Abrams, H.A., Fike, D.F., and Ostrowsky, E.F.; (1983), Evaluating the impact of prevention programs aimed at children, Social Work Research and Abstracts, Vol. 19(2), pp. 11-18.

Nunnally, J.C.; (1975), The study of change in evaluation research: Principles concerning measurement, experimental design, and analysis. In E.L. Struening and M. Guttentag (Eds.), Handbook of Evaluation Research, Vol. 1, Beverly Hills: Sage.

Nunnally, J.C., and Durham, R.L.; (1975), Validity, reliability and special problems of measurement in evaluation research. In E. Struening and M. Guttentag (Eds.), Handbook of Evaluation Research, 1. Beverly Hills: Sage.

Offord, D.R.; (1982), Primary prevention: Aspects of program design and evaluation, Journal of the American Academy of Child Psychiatry, Vol. 21(3), pp. 225-230.

Orvaschel, H., Sholomskas, D. and Weissman, M.M.; (1980), The assessment of psychotherapy and behavioral problems in children: A review of scales suitable for epidemiological and clinical research (1967-1979). Mental Health Service Systems Reports, Series AN, No. 1, DHHS Publication No. (ADM) 80-1037. Washington, D.C.: U.S. Government Printing Office.

Pancer, S.M.; (1986), The catalogue of goals for residential treatment: An individualized outcome measure for residential childrens' programs, Canadian Journal of Program Evaluation, Vol. 1(2), pp. 69-79.

Pearce, D.W. (Ed.); (1978), The Valuation Of Social Cost. London: Allen and Unwin.

Powell, D.R.; (1987), Methodological and conceptual issues in research. In S.L. Kagan, D.R. Powell, B. Weissland, and E.F. Zigler (Eds.) America's Family Support Programs. New Haven: Yale University Press.

Rappaport, J. and Wurmser, J.H.; (1979), Guide to mental health treatment outcome measures. In B. Markham, and R. Turner, (Eds.), Survival Kit for Program Evaluators. Piscataway, New Jersey: Rutgers University (New Jersey Program Evaluation Action Committee), pp. 207-217.

Ray, A.; (1984), Cost-Benefit Analysis: Issues and Methodologies. Baltimore: Johns Hopkins University Press.

Reimey, C.J., Sparling, J.J., Bryant, D.M., and Wasik, B.H.; (1982), Primary prevention of developmental retardation during infancy, Prevention in Human Services, Vol. 1(4), pp. 61-83.

Reynolds, W.M.; (1984), Depression in children and adolescents: phenomenology evaluation, and treatment, School Psychology Review, Vol. 13(2), pp. 171-182.

Robinson, J.P., Athanasiou, A. and Head, K.B.; (1967), Measures of Occupational Attitudes and Occupational Characteristics. Ann Arbor, Michigan: Survey Research Centre, University of Michigan.

Robinson, J.P. and Shaver, P.R.; (1973), Measures of Social Psychological Attitudes. Ann Arbor, Michigan: Institute for Social Research.

Robinson J.P. and Shaver, P.R.; (1969), Measures of Social Psychological Attitudes. Ann Arbor, Michigan: Survey Research Centre, University of Michigan.

Rossi, P.H., and Freeman, H.E.; (1982), Evaluation - A Systematic Approach. Beverley Hills: Sage.

Sackett, D.L., Haynes, R.B. and Tugwell, P.; (1985), Clinical Epidemiology: A Basic Science for Clinical Medicine. Toronto: Little, Brown.

Sanazaro, P.J. and Williamson, J.W.; (1968), End results of patient care: A provisional classification based on reports by internists. Medical Care, Vol. 6, pp. 123.

Schinke, S.P., Gilchrist, L.P., Lodish, D., and Bobo, J.K.; (1983), Strategies for prevention research in service environments, Evaluation Review, Vol. 7(1), pp. 126-136.

Seitz, V.; (1987), Outcome evaluation of family support programs: research design alternatives to true experiments. In S.L. Kagan, D. R. Powell, B. Weissbourd, and E. F. Zigler (Eds.) America's Family Support Programs. New Haven: Yale University Press, pp. 329-344.

Shaw, M.C. and Goodyear, R.K.; (1984), Introduction to special issues on primary prevention, Personnel and Guidance Journal, Vol. 62(8), pp. 444-445.

Shaw, M.E. and Wright, J.M.; (1967), Scales for the Measurement of Attitudes. New York: McGraw-Hill.

Smith, N.L., (1981), New Techniques for Evaluation. Beverly Hills: Sage.

Staulcoup, H.J., and Royer, T.D.; (1983), The development of preventive methods in child welfare, Children and Youth Services Review, Vol. 5(1), pp. 31-47.

Stolberg, A.L., and Garrison, K.M.; (1985), Evaluating a primary prevention program for children of divorce, American Journal of Community Psychology, Vol. 13(2), pp. 111-124.

Trickett, E.J.; (1984),Toward a distinctive community psychology: An ecological metaphor for the conduct of community research and the nature of training, American Journal Of Community Psychology, Vol. 12(3), pp. 261-279.

Udinsky, B. F., Osterlind, S.J., and Lynch, S.W.; (1981), Evaluation Resource Handbook: Gathering, Analyzing, Reporting Data. San Diego: Edits.

Waskow, I.E. and Parloff, M.B. (Eds.); (1975), Psychotherapy Change Measures. DHEW Publication No. (ADM) 74-120. Washington, D.C.: U.S. Government Printing Office.

Weiss, C. H.; (1972), Evaluating Action Programs: Readings in Social Action and Education. Boston: Allyn and Bacon.

Williams, A. and Anderson, R.; (1975), Efficiency in the Social Services. London: Robertson.

APPENDIX H

LIST OF SELECTED ONTARIO PROGRAMS

Centre Service Famille de Prescott-Russell
510 Principal East Street
Hawkesbury, Ontario

Child and Parent Program
265 King Street East
Kitchener, Ontario

Child's Place
2611 Labelle Street
Windsor, Ontario

College Montrose Children's Place
Montrose Public School
Toronto, Ontario

The Cradling Program
c/o Lutherwood
R. R. # 3
Waterloo, Ontario

Creating Together Parkdale Ltd.
1580 Queen Street West
Toronto, Ontario

Crescendo Programs
Pinecrest Queensway Community Services Centre
804 Grenon Avenue
Ottawa, Ontario

Delta Child Care Network
75 Stanley Street
Downsview, Ontario

Earl Haig Community Daycare
15 Earl Haig Avenue
Toronto, Ontario

H: ONTARIO PROGRAMS

Family Focus / Leeds and Grenville
Box # 271, 32 Wall Street
Brockville, Ontario

Family Place
North Halton Family and Child Enrichment Centre
185 Ontario Street
Milton, Ontario

Family Resources for Victoria County
Lindsey, Ontario

Fashion District Child Care Centre
c/o George Brown College
511 Richmond Avenue
Toronto, Ontario

George Hull Centre for Children and Families
George Hull Centre
Etobicoke, Ontario

Gerrard Resource Centre
Toronto, Ontario

Greenway-Chaplin Neighbourhood Association
Cambridge, Ontario

High Risk Parenting
Scarborough, Ontario

Infant Development
125 Delhi Street
Guelph, Ontario

Jane-Finch Community and Family Centre
108 - 4400 Jane Street
Downsview, Ontario

Jessie's Centre for Teenagers
165 Bathurst Street
Toronto, Ontario

Kingston and District Association for the Mentally Retarded
Kingston, Ontario

Merrymount Co-Op Preschool
150 King Edward Avenue West
London, Ontario

Minto Counselling Centre
P.O. Box 2298
Cochrane, Ontario

Mobile Outreach Services
Family Enrichment Centre
Peterborough, Ontario

Mothercraft
Child Care Resource Program
Ottawa, Ontario

Muskoka Family Focus and Children's Place
Bracebridge, Ontario

Nadmadwin Clinic
Widwenikong
Manitoulin Island, Ontario

North Kingston Project
Kingston, Ontario

Notre Dame of St. Agatha
Preschool Community Support Program
77 Notre Dame Dr. North
St. Agatha, Ontario

H: ONTARIO PROGRAMS

Oakville Parent Child Centre
341 Kerr Street
Oakville, Ontario

Our Place
Brookdale Village
Sudbury, Ontario

Parent Connection
50 Lincoln Street West
Welland, Ontario

Parent Education Program and Outreach Prevention Program
Kiwanis Centre
Sarnia, Ontario

Prevention Initiative Consultation Program
798 King Street West
Kingston, Ontario

Primary Prevention Program
Bruce-Grey Children's Services
1266 16th Street East
Owen Sound, Ontario

Program for Encouraging Development
Windsor Essex County Health Unit
Windsor, Ontario

Service a la Jeunesse de Hearst
P.O. Box 2428
Hearst, Ontario

Single Mothers and Infant Learning Experience (SMILE)
Regional Municipality of Durham
Department of Health Services
301 Golf Street
Oshawa, Ontario

South Riverdale Child-Parent Centre
765 Queen Street East
Toronto, Ontario

Story Book Nursery School
26 Arthur Avenue
Essex, Ontario

Timmins Family Life Centre
176 Algonquin Boulevard East
Timmins, Ontario

Toronto Children's Storefront
1079 Bathurst Street
Toronto, Ontario

University Laboratory Preschool
Department of Psychology
University of Western Ontario
London, Ontario

The Warm Line
Windsor, Ontario

Whitefish Bay Daycare Centre
Politic Post Office
Whitefish Bay, Ontario

Windsor Early Identification Kindergarten Program
Windsor Board of Education
Windsor, Ontario

Young Mother's Support Program
200 Sheppard Avenue East
Willowdale, Ontario

Young Parent's Support Group
Humber Memorial Hospital
Toronto, Ontario

APPENDIX I

AMERICAN PROGRAMS REVIEWED

Advance Educational Program for Parents and Children
1226 Northwest 18th Street
San Antonio, Texas,

Family Community Resource Centre
Boston Public Housing
Boston Mass.

Family Enhancement Program
605 Spruce Street
Madison, Wisconsin

Family Focus
2300 Green Bay Road
Evanston, Illinois

Family Life Centre
714 South National
Springfield, Missouri

Fredrick County Family Life Centre Inc.
35 East Church Street
Fredrick, Maryland

Neighbourhood Family Resource Centre
Council on Early Childhood Centre for Urban Studies
Wayne State University
Detroit, Michigan

The Ounce of Prevention Fund
Chicago, Illinois

Volunteer Clearing House Opportunity Centre
401 Linden Street
Fort Collins, Colarado,

Webster Avenue Family Resource Centre
134 Webster Avenue
Rochester, New York,

APPENDIX J

RESEARCH ASSISTANTS

to the

TECHNICAL ADVISORY GROUP

Heather-Anne Driver B.A., M.S.W. (in progress)
University of Toronto
Toronto, Ontario

Kathleen Kitching, B.A., M.A.
Wilfred Laurier University
Waterloo, Ontario

Margaret Matthews, Ph.D. (in progress)
Queens University
Kingston, Ontario

Karen Purvis B.A. M. Ed. (in progress)
Ontario Institute for Studies in Education
Toronto, Ontario

Linda A. Steenson, B.A.
University of Guelph
Guelph, Ontario

APPENDIX - K

MINISTRY OF COMMUNITY AND SOCIAL SERVICES

Sandra Scarth
Director
Children's Services Branch

Sydney Woollcombe
Manager, Child Treatment, Intervention and Prevention Unit
Children's Services Branch

Carol Crill Russell
Project Design Coordinator
Coordinated Primary Prevention Initiative
Children's Services Branch

Peter Murchison
Prevention Coordinator
Children's Services Branch

Heather Martin
Policy Analyst
Children's Services Branch

Roma Scott
Senior Research and Program Evaluation Analyst
Strategic Planning and Intergovernmental Relations Branch

Nadine Leggett
Publications Reviewer and Coordinator
Children's Services Branch

Gabriele Lenk
Word Processing Coordinator
Children's Services Branch